

Another illuminating example is the widely-discussed area of self-production; in this case the designer is involved not only in the design process, but also in the realization of an artefact; this is accomplished using computerized machines and methods linked to highly technological handicraft. It is no longer a question of exception or avant-garde experimentation, as it was in the eighties (thinking of Alchymia and Memphis), but a question of a practice which is currently widespread among young designers (and not only), who thus manage to produce on a small scale and yet, command considerable attention. Self-production as a sophisticated craft is not contending with industry, but running parallel and integrating it, in the sense that the self-made product can be tested, with a view to then proceeding to produce it industrially².

This is the true in the case of (to mention two illustrious names) Michele De Lucchi's *Produzione privata* and Dennis Santachiara's *Personal Factory*, where a new mould doesn't need to be created in order to produce a new proto-type, but one needs simply to insert (new)software in the machine.

In this sense, the concept of handicraft now takes on a new, and more interesting meaning, as privileged territory for healthy experimentation on projects and paradoxical updating, above and beyond consolidated (industrial) production processes and the simple logic of marketing linked to consumerism. In conversations with Enzo Mari, the craftsman actually assumes a status intrinsic to the success of Italian design:

What is Italian design? A characteristic typical of Italians: the art of "making do".

And what does this depend on? Three things: a lack of money, the presence of a million craftsmen, and living in the largest depository of art-works in the whole world (Capella 1997, 555-56).

In fact, if we examine Italian design, we note an inimitable ability to combine, at the utmost level, industrial and craft-made quality (and quantity); here we are often dealing with half-completed work, well-made technically and rounded off with a craftsman's care and diligence. The outcome is almost always admirable and often a wonderful blend of tradition and innovation. For example, this is evident in the *Superleggera* chair by Gio' Ponti, designed for Cassina in the fifties, along the lines of the so-called *Chiavarina* (a chair widespread in Chiavari), a first-rate example of handicraft, technically perfect and fixed firmly in the public imagination. Ponti's version is somewhat lighter than the classic *Chiavarina*; it is slender, graceful and elegant, due to the tapering parts and inclusion of ingenious elements borrowed from the aviation industry. Consequently, the *Superleggera* is a symbol of Italian design, which has not repudiated traditional craftsmanship, but integrated it synergically with effective industrial procedures.

Within this framework, in the eighties, the newly-founded Palermo Dipartimento di Design (the former Institute of Industrial design and Building, i.e. Istituto di Disegno industriale e produzione edilizia) endeavoured to outline a *via siciliana al buon design* (i.e. a Sicilian approach to good design), without falling into the hands of consumerism, because, as is widely acknowledged, *there are no industries in Sicily*. Therefore, on the one hand, it encouraged links with the various productive structures, proto-industrial, handicraft, industrial etc., and on the other, a bold experiment with everyday artefacts. As Anna Maria Fundarò, the founder of the Institute, affirms «by questioning the univocity of the relationship between "design" and "industrial" (precociously singled out in the early eighties) we are made to feel potentially involved in a debate from which we felt excluded from the beginning: the extension of the concept of design beyond mere traditional, formal planning of structures and objects (again, it needs to be said, something noticed here before anywhere else) confirms the changes in the frontiers and fields of professional application; this extends beyond form, to the qualities that constitute a system of cultural

2. Branzi comments (1982, 141): «the new craftsman places himself beside, or before, the production line, and not against it, since his experience is of a non-technical or non-productive nature, but fundamentally expressive. In other words, he carries out a privileged industrial laboratory function, producing models that greatly expand the constituent repertoire of present-day industrial design, whose margins for renewal, within the industrial experience alone, are more and more limited to re-cycling of productive stylistic elements that have been widely endorsed. [...] proposing custom-built pieces, responds to a growing demand for objects that can be used for decoration in the most figurative sense of the term, in comparison to an ever more homologated and anonymous production-line».

and linguistic information, a system of utilisation that is more engaging than one of mere building structures. Handicraft is to be viewed as a basis for experimentation in planning/design, in total harmony with materials and the construction process; it is to be seen as a privileged moment of importance for industry itself and not as an alternative to industry; it can help trigger processes of collaboration and recovery that are not fanciful and regressive, and enable us to utilise minority cultures to overcome official aesthetic codes and unbridgeable technological gaps» (Fundarò 1982, 8-9).

More recently, taking as a point of reference the previously-mentioned *Superleggera*, the Department of Design (University of Palermo) has taken the courageous step of re-designing the classic Bivona chair. Although this solid and functional chair, an object of spartan beauty (Magistretti might have described it as "pride in modesty"), is to be found widely throughout Sicily, it is, unfortunately, gradually disappearing, because it is fatally dependent on one single remaining craftsman possessing the precious skills required. In accordance with the wishes of Bivona town-council, which in this case has taken on an entrepreneurial role, the Department of Design has proposed revitalising the Bivona chair through a series of operations, commencing from the craft tradition and integrating it with innovative methods, procedures and materials. Yet the stakes are high, since this is not only a question of (re-)creating a fine chair, but also stimulating the entire economy of the small town of Bivona, from design to technical application, from entrepreneurship to advertising, whilst the principal aim remains that of maintaining the manufacturing and cultural heritage of this specific context.

Design is also all this and not only Philippe Starck's lemon-squeezer!

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Habitat

IDENTIFYING URBAN POPULATIONS. A CONCEPTUAL FRAMEWORK

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Abstract

This paper claims that nowadays relationships between residents and places are like those between tourists and places. The aim of this contribute is to demonstrate that residents and tourists are not different populations but just different ways of being inhabitants. In this view, being inhabitant is a fuzzy variable, consequently we have attempted to build a framework for recognizing this property.

All the policies (and not just the tourism policies) should be built around the inhabitants of a place, not just around residents.

The changed mobility paradigms allows people to take part in the life of different territories, not necessarily near each other, in ways and times absolutely variables among individuals, nevertheless only the residents are usually placed at the centre of the planning processes.

Cities acquire their meanings from the system of relationships between places and people which also influence the spatial changes occurring in the cities. .

These meanings are not fixed and invariable, but are constantly being negotiated, being changed, being recoded. Governing a place requires an adequate understanding of the diversity and richness of these different meanings that each population brings with it.

To build our framework we took into account three assumptions:

1. Whoever can know whatever place and becomes inhabitant of it.
2. Knowledge and experience of a place is incremental
3. There are many ways to inhabit a territory, each and all contribute to its environmental, cultural and social transformation.

These assumptions lead us to say that we can define, in some way, "how much" people are inhabitants of a place. If knowledge of a place is incremental, each person by accruing experience can become "more inhabitant".

The "measure" of being inhabitants of a place has been defined like "Inhabitantness".

Each person can be classified with a score from 0 to 100.

The maximum value, 100% represents those who have been living in a city for a long time, work, consume and spend their free time locally and, also, "take care of" it. They are an integral part of local society: in short, the traditional inhabitants. The minimum value, zero, represents those who are not inhabitants. However, the same score does not represent the same population, inhabitantness must be assessed over time, in its evolution.

If we represent the root process (growth of inhabitantness) in a graph (place's experience on abscissa, inhabitantness score on ordinate), the curve will have a logarithmic trend: to equal experiences correspond an increase of inhabitantness each time smaller as the title grows up.

The time required to increase the inhabitantness (at any level) depends on both the peculiarity of the person and the characteristics of the place (in the broad sense, both environmental and socio-cultural); so each person will have a different speed-distance of the curve.

The curve is different if we evaluate the eradication path (loss of inhabitantness). In particular for maintaining the same inhabitantness level already achieved, one need not continue doing all the

experiences: there is not direct proportionality between the experiences that are not continued and the loss of the inhabitantness. Once we have achieved a good level of inhabitantness, if our experience leads us elsewhere, we remain inhabitants of the place, to rephrase DeBeers we can say that "a good inhabitant is forever."

Investing in policies that increase inhabitantness title means to have returns for many years. A good score means good inhabitants, hence a policy that involves a general growth of inhabitantness improves its population, and a better population means a better place.

Key words: Populations, inhabitant, tourism, tourist.

INTRODUCTION

The changed mobility paradigms allows people to take part in the life of different territories, not necessarily near each other, in ways and times absolutely variables among individuals.

Most of these different ways of life "exploded" after the Second World War, in Italy as well as in all the others developed countries.

There has been a transition from a world in which people were born, lived and died without having moved more than a few kilometres to a world in which is difficult to spend a whole day without moving.

The main reasons are three:

1. The means of transport.

The distance that an individual can travel has extremely increased since the train, the car and the plane (in chronological order) became of common use. The world is thought as a system of temporal contiguity: distances are measured in hours.

2. The breaking of the direct link with the land.

The secondary and tertiary sectors, multiply the opportunities to work and produce in places different from those in which we live. Working without close ties to the land means being able to interact with more people and territories.

3. Computerization.

Today the contact, the knowledge and the exchange of information among people can occur without physical presence. However, being able to reach people everywhere generates an increase of movements. From a pre-industrial world, in which there was symbiosis between place and community, we have moved to a world in which local life is increasingly involved in global processes and the concept of community is in crisis.

This individual, mobile and plural life is not easily classifiable within a conceptual system. The structure of a city and its transformations (physical and immaterial) arise from the movement that is generated around them, a movement of populations: people that work, sleep, buy, or "simply" pass through.

Cities take their meanings from the system of relationships between places and people¹.

These meanings are not fixed and invariable, but are constantly being negotiated, being changed, being recoded. To govern a place requires an understanding of the diversity and richness of these different meanings in relation to each population.

There are territories that have the so-called "touristic vocation" affected by the presence of a transient population important in both quantity and quality terms: a case even more complex than the previous one for understanding the phenomena and having the possibility to recognize and govern them.

Clearly there are differences among various populations, some of them will compete with each other², others can co-exist.

¹ Amin A., Thrift N. (2001), *Cities. Reimagining the urban*, Blackwell Publishers,

² Ashworth G.J., Tunbridge J.E. (1990), *The Tourist-Historic City*, Belhaven, London.

Tourism policies are usually characterized by a sectorial, economic approach, they are not seen as territorial policies.

Policies that affects the population composition of a territory, its urban, physical and environmental structure should not be sectorial; we do think that the tourism policies *are* territorial policies.

Even the tourists are inhabitants, they are just different (not in absolute terms) inhabitants.

Investigate how many and who they are appears necessary in order to understand the transformation of a place and device suitable policies to govern it.

It is a rethinking of the paradigms of government: if before it was clear that the government was done for the citizens, and these were identified with residents, today we are facing new forms of citizenship, more elusive and rarefied nonetheless with important territorial implications.

THE TOURISTS

Among the people who move into an area, the tourists' category is growing in importance. Tourists are traditionally recognized and defined as different from residents, often accounted just as numbers in the policies of a city, thought as customers by tourism policies. Nevertheless they play an important role in the territories affected by their presence.

But: "Who is a Tourist?"³

According to Cohen (1974):

"One of the more interesting features accompanying the contemporary tourist boom is the extraordinary proliferation of diverse forms of tourism, ranging from short excursions to round-the-world trips, from sea-side vacations to veritable expeditions into almost unknown parts of the world, such as Antarctica or Greenland, from organized and routinized mass-travel to leisurely, individualized exploration or drifting off- the- beaten-track."

From 1974 to today the ways to do tourism and the types of tourists have exponentially increased their number.

This view recognizes a variety of reasons and different ways of dealing with places and populations; the concepts of tourism and tourist should be a bridge to tourisms and tourists.

The World Tourism Organization⁴ defines tourists as:

people who "travel to and stay in places outside their usual environment for more than twenty-four hours and not more than one consecutive year for leisure, business and other purposes not related to the exercise of an activity remunerated from within the place visited".

For Cohen (1974) – A tourist is a temporary traveller, travelling in the expectation of pleasure from the novelty and change experienced on a relatively long and non-recurrent round trip.

Moreover Cohen⁵ defines six key dimensions for the tourist:

- The temporary nature of the trip, the tourist maintains residence and address, unlike tramps. The journey of the tourist is an exceptional and often unusual state.
- The voluntariness; the tourist chooses to leave and return freely, without constraints (eg. political refugees);
- The circularity of the shift: the tourist always returns to the place of departure. Tourism is a temporary migration.
- The time spent is more than one day, unlike walkers and excursionists. Time and distance involved must be relatively long.
- The route is not recurring, unlike commuters or those who own homes for spending the weekends.

3 Cohen E. (1974), *Who is a tourist? A conceptual clarification*, in *The Sociological Review* XXII,

4 WTO, (1997), "UNWTO technical manual: Collection of Tourism Expenditure Statistics" World Tourism Organization. p. 14.

5 Cohen E. (1974), *ibidem*

- The non-instrumental goals, the travel should not be due to external motivation (eg, study or business), but must be an end in itself.

Tourism is a cumulative process of these six dimensions, a continuum within which there are different shades and intensities of the tourism component.

All the above dimensions already encompass, more or less explicitly, the time dimension:

- talking about usual places, implies a lack of knowledge and attendance by the tourist of destination places.
- The time spent is a minimum of 24 hours, the various definitions refer to the idea of sleeping elsewhere. This involves a contact with the local population or at least the use of a local service (hotel).
- No more than one consecutive year.

The time limit (albeit one year seems a rather arbitrary term) is very interesting because it implies the existence of a time of attendance beyond which we can not be regarded as tourists.

In short, the tourist is a person who does not know (or who knows little about) the place where he has gone, at least sleeps a night there, does not repeat often the same trip and is not staying too long.

The various definitions show the effort required to "cut off" a lot of transient populations that are not tourists, but neither inhabitants in the traditional sense.

This effort can hide the idea that after that a tourist knows, lives and attends a place can become another, it might be an inhabitant *in fieri*.

Cohen (1974) illustrates that the tourism component can be represented in a fuzzy way. "There exist many traveller roles which possess a "touristic component" of varying strength prominent examples are the Italian or Irish immigrant who pays a visit to the "old country", the young professional engaging in "touristry", who is in search for jobs which will give him an opportunity to see the world while working (Pape 1965), the pilgrim who combine devotion with some "religious tourism" or the persons who "takes the waters" to a spa⁶, ostensibly to improve his health but actually to enjoy himself (Lowenthal 1962)."

There is not therefore a dichotomy or a strong gradient between the travellers who are tourists and the ones who are not.

This point of view is supported by postmodern tourism which emphasizes the recognition of differences. "In practice, postmodernism tends to emphasize the diversity and richness of life, in which the subject is actively involved in the construction of social meanings through its activity and its reflection: the logic exclusive -or ... or ... -, is replaced with the logic of inclusion -and ... -and ...- and...".⁷

The key for understanding the postmodern tourism is entrusted by Uriely⁸ to the recognition of three fundamental characteristics:

- Lack of differentiation between the everyday life and touristic experience; a vision of the holiday characterized by not doing, by the distance from daily tasks, is replaced with a vision characterized by doing and by a mixture of activities⁹. The touristic moment becomes a completion of everyday life. By contrast this one is enriched by "touristic moments", the space of work and vacation, the everyday and the extraordinary overlap more and more.
- Multiplication of different experiences within the same touristic moment; The pluralization of the experience starts from the need to do a series of activities (including non-tourist) that tourism space can offer;
- The role of subjectivity in the construction of the tourist experience.

6 Cohen E. (1974) "Who is a tourist? A conceptual clarification", in *The sociological review* XXII,

7 Gatti F., Puggelli F.R. (2006), "Nuove frontiere del turismo" – a cura di– Hoepli, Milano

8 Uriely N. (1997), "Theories of modern and postmodern tourism" in *Annals of Tourism research* vol 24,

9 Lash A, Urry J. (1994), "Economies of signs and spaces" Sage Publication, London

Some things or places can have a different meaning and value for tourists, and this value can also be acquired by residents: the visitor has an active role in the allocation of meanings.

An important flow of transient population changes the meanings and values of spaces and places. If transient populations are more numerous than resident population, this change will be much stronger and faster, but it also depends by the time that they will spend on the territory and by their degree of social involvement.

The activities that the tourist does, the time spent in a place and the involvement processes within places and their social structure, lead (or may lead) the tourist to become, gradually, closer to resemble an inhabitant.

Therefore inhabitants and tourists could not be considered as different populations, but like different shades of the same population.

THE INHABITANTS

The above leads us to wonder about who is the contemporary inhabitant of a place and especially about what being inhabitant means.

Where once there was essentially identification between the resident community and the place, now the link is very different and variable among individuals. New populations have appeared interpreting new lifestyles.

To try to understand these differences, we have chosen a sociological approach, referring to the research line pursued by Martinotti¹⁰, Nuvolati¹¹, Mela and Davico¹², that classify the populations according to the activities that they perform on the territory.

This classification recognizes within the city the following populations: inhabitants (residents), commuters, city users (passing guests, students and everyone who have an instrumental relationship with the city), businessmen and flâneurs.

So we have a first distinction between four types of people made on the basis of three functions: living, working and consuming¹³.

Populations	Activities performed		
	Living	working	consuming
Inhabitants	Yes	yes/no	yes
Commuters	No	yes	(yes)
City users	No	no	yes
Businessmen	No	yes	yes
Flâneurs	Yes	yes/no	yes

Tourists are a subclass of city users. They differ because (usually) they spend longer periods in the city doing a more complete range of activities: visiting museums, consuming meals, shopping, walking, overnight staying and, in general, coming from more remote places.

As we can see, thinking only of the city of the residents means to overlook much of the population that influences the life and shape of the city itself.

¹⁰ Martinotti G. (1993), *Metropoli. La nuova morfologia sociale della città*, Il Mulino, Bologna

¹¹ Nuvolati G. (2002), *“Popolazioni in movimento, città in trasformazione. Abitanti, pendolari, city users, uomini d'affari e flâneurs”*, Il Mulino, Bologna

¹² Mela A., Davico L. (2002), *“Le società urbane.”*, Carocci, Milano

¹³ Nuvolati G. (2003); *Resident and Non-resident Populations: Quality of Life, Mobility and Time Policies*, in: *Journal of Regional Analysis and Policy*, 33:2, 67-83

In general, today's lifestyles are so personal that anyone can, at different times, belong to either population, the same individual, depending on the area or the time under consideration, may be resident, commuter, city user, etc.

A city user may be a foreign tourist, a college student, a patient that needs medical care, etc.. It is evident that their participation in the city's life, their impact on spaces and meanings, their ways of living are not the same; even within each category there are significant differences.

Connote a population on the basis of the performed activities is useful but not sufficient to determine its influence on a place.

Another variable that becomes discriminatory to differentiate the populations is the time that they "spend" in the territory: more time a person stays in a place more he/she will be enrooted leading to a stronger identification with the place.

The measure of the degree of identification / belonging of a person to a particular place could be obtained, as a first approximation, as a function of the time that it is passed inside or connected with it.

To try to investigate further what the distinctive elements of inhabiting a place are we have developed a conceptual framework of reference.

To build our framework we took into account three assumptions:

1. Whoever can know whatever place and become inhabitant of it.
"To estimate the type of relationship that links an individual to a place - in terms of perception and attribution of meaning to places (Walmsley ¹⁴) we should start from a general point, namely that any place in any city can be, by any person, known or unknown.¹⁵"
To become inhabitants of a place it is not strictly necessary to have past ties, inherit knowledge or otherwise.
2. The knowledge and the experience of a place are incremental.
If knowledge of a place is incremental, each person can become "more inhabitant" with increasing experience;
3. There are many ways to inhabit a territory, each and all contribute to its environmental, cultural and social transformation.

"The city is made up of places, both natural and constructed, public and private. It is compared with these that individuals relate in the construction of their identity (Lee¹⁶, 1982). Feel part of, or be unrelated to a city also means recognizing the places, attend, give it meaning, memorize them. Of course, the identification with a city does not happen only in a purely physical way. The network of relationships, the sharing of cultural patterns, lifestyles play a prominent role in forging the attachment of an individual to a community and within the territorial context of reference."¹⁷

Four dimensions seem to be relevant for defining the inhabitant of a place:

- I. The time he/she passes over the territory;
- II. the type of performed activities;
- III. the social involvement;
- IV. the attitudes of places.

Each one defines the quality of the inhabitant, and only good scores in all dimensions identify the traditional inhabitant; different scores correspond to different inhabitants.

These assumptions lead us to say that we can define, in some way, "how much" people are inhabitants of a place.

¹⁴ Walmsley D.J. (1988), *"The individual in the city"*, Longman Scientific & Technical, London

¹⁵ Nuvoletti G. (2002), *op. cit*

¹⁶ Lee B. (1982), *Psychosocial Theories of the Self*, Plenum Press, New York

¹⁷ Nuvoletti G. (2002), *op. cit*

THE INHABITANTNESS

We can assert that being inhabitants of a place is a fuzzy variable. "In the modern theory of sets, a fuzzy variable" is defined as the type of imprecision that is associated with fuzzy sets such that within classes there is not a sharp transition between members and non"¹⁸.

Apart from being residents or not, tourists or commuters, each one can be defined inhabitant; there is not only one way to inhabit but there are many different ways.

For each of the dimensions defining the inhabitant (as listed above), we can identify a set of indicators employable to define a measure. We can report each value on a scale from 0 to 100, and build an overall score, in the same scale, that summarizes the previous one.

The maximum value, 100% represents the individuals who have been living in the city for a long time, work, consume and spend in it their free time and, also, "take care of" it and are an integral part of local society: in short, the traditional inhabitants. The minimum value, zero, represents the individuals who are not inhabitants. In between are all the others.

The "measure" of being inhabitants of a place can be defined like "Inhabitantness".

We can consider this characteristic as an indicator of the goodness of a person for the territory: the greater the inhabitantness, the better a person is for the territory. Therefore actions that improve the presence of populations with high inhabitantness or policies that increase this title are certainly interventions that improve the local system, with spin-offs on its anthropogenic (social and cultural) and environmental components.

Looking at contemporary life is clear that no one is inhabitant of a place at 100%. Lifestyles are so many that it is almost unthinkable now performing all the activities listed above in one place: today everyone is inhabitant of several places in different ways.

We can think of constructing a map of the inhabitantness for the populations of a place. As result we will have a temporary picture of the number and quality of today's inhabitants. Clearly, they can vary in number but also their inhabitantness can vary in both positive and negative sense, because they can become "more or less inhabitants" than before.

A territory which has a higher average of inhabitantness is certainly richer than another one, with the same number of inhabitants, whose average is less.

A good policy is the one that among the transient populations (including tourist) will benefit those with highly inhabitantness, since they are more important for a territory.

THE ROOT PROCESS

The same score does not represent the same population, inhabitantness must be assessed over time, in its evolution. Two inhabitants both at 50% score for example, can be very different from each other: one might be a person born and grew up in a place and after emigrated, and the other a person born elsewhere but now frequenting that place assiduously and working there. It is clear that to speak about inhabitantness at 50% it is not sufficient to identify the populations, we need to have further indications.

Beyond providing a static frame of inhabitantness, it is also important to have a dynamic one. Between a resident who is in a rooting phase (inhabitantness is rising) and one that is in uprooting (decreases of inhabitantness) there are substantial differences.

We can represent the root process (growth of inhabitantness) in a graph (placing experience on abscissa and inhabitantness score on ordinate), the curve has a logarithmic trend: to equal experiences correspond increases of inhabitantness each time smaller as the title grows up.

¹⁸ Bellman R.E., Zadeh L.A. (1970), *Decision-Making in a Fuzzy Environment* - MANAGEMENT SCIENCE, Vol. 17, No. 4, December 1970, pp. B-141-B-164

The time required to increase the inhabitantness (at any level) depends on both the peculiarity of the person and the characteristics of the place (in the broad sense, both environmental and socio-cultural); so each person has a different speed-distance of the curve.

Strictly speaking the title of 100% should be an asymptotic value out of reach. However, it is preferred to consider that the title can be reached, this means shifting the abscissa "100" on the left in graph (i.e. changing the scale of abscissa) and cut the function before reaching the asymptote, more or less.

THE ERADICATION PROCESS

The curve is different if we evaluate the eradication path (loss of inhabitantness).

For example we can evaluate what happens when someone moves away from where was born and grew up. Despite not spending much time in the place of origin any longer, it cannot be said that the person has ceased to be an inhabitant of the place of origin. The experience and the knowledge of places remain over the years, friendships and relationships continue to involve us, our interest in the events affecting those places is still very high, even though we are at considerable physical distance from them.

Being or feeling inhabitants of a place is a fact that does not need continuity, assiduity or repetitiveness.

However, there is a certain "decay" during a lifetime. If for decades you do not visit a place and stop attending the social life, something changes. The place has since changed while in our memory it is remained unchanged: the reality and the memory/imaginary become very different.

Also, if we do not live in a place, we cannot actively participate to its care.

Nevertheless, to maintain the inhabitantness level already achieved, one does not need to carry on doing all the experiences: there is not direct proportionality between the experiences that are not continued and the loss of inhabitantness.

The eradication path will be different:

The speed of distance of the eradication path is therefore considerably lower than that of the phase of rooting. Moreover, since we are talking about people and the timescale available to them is limited to that of a lifetime, the curve cannot be retraced integrally. If we consider a rooted inhabitant (100%), he/she can never decay, in the time-frame of a life, below a "certain inhabitantness" level, because some of the experiences of a place remain everlastingly.

As a result we can say that everyone is an inhabitant of all the places where has been in his/her life. However, only a few (or at least one) are the main references, the ones where we think we are inhabitants, those which, although we may have left them, remain fundamental and important for our life.

To have people with high inhabitantness is important for a place, because these inhabitants of today will still be good inhabitants tomorrow.

This character is the reason why the policies of a government of a territory should have as key target the improvement of its inhabitantness level.

Invest in policies that increase inhabitantness means to have returns for many years.

Once we have achieved a good level of inhabitantness, if our experience leads us elsewhere, we remain inhabitants of the place anyhow, to paraphrase DeBeers we can say that "a good inhabitant is forever."

CONCLUSIONS

The purpose of this work is to try to change the point of view, generally very spatial, and put inhabitants at the center of policies, recognizing them first.

The theoretical framework proposed is aimed at trying to understand, differentiate and improve (in number or quality) the "good populations" of a tourist destination, but with general considerations.

Nowadays there is not a clear difference between those who moves in an area: all are inhabitants, albeit in different ways and measures. Being settled in a place rather than being transient therefore it is not an a priori discriminant that can tell if we are speaking of a good inhabitant.

The time has come to stop talking of inhabitant and put the emphasis on different inhabitants.

Perhaps the biggest novelty discussed here is to try to give a measure of being inhabitants of a place, assess the inhabitantness of the populations.

However, the measurement of inhabitantness alone is not enough to inform the policies of a territory. The mechanisms of variation are many and to equal levels of inhabitantness can correspond very different populations.

In order to tackle this question we can analyze the partial values of inhabitantness, representing the scores of population within each of the four dimensions of analysis used to compose the general heading:

- I. The time a person spends in the territory;
- II. the type of performed activities;
- III. the social involvement;
- IV. the attitudes of places.

This analysis helps us to understand where a population has a good inhabitantness, what is lacking and what its main resources are.

Within each dimension we can investigate what is the contribution of various indicators to understand more thoroughly how the population is determined, it is very uniform or varied, if the deficiencies are bridgeable or not, if it is in a rooting or in eradicating phase.

We are aware of the enormous difficulties that exist in the retrieval of data to construct general frameworks of inhabitantness, if we still find difficult to perform quantitative assessments, it is even more complex for qualitative ones.

However it is believed that the conceptual framework can be very helpful for designing policies related to tourism issues as well as other territorial policies.

The model has also a forecast character, as it is possible to envisage future scenarios of populations on the basis of changes in local policies.

Investing in policies that increase inhabitantness title means to have returns for many years. A good score means good inhabitants, a policy that involves a general growth of inhabitantness improves the population, and improved population means better places for all.

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A NEW ENVIRONMENTAL LABEL FOR FARM HOLIDAYS AS A TOOL FOR IMPROVING THE INTEGRATED RELATIONAL TOURISM

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Abstract

In Europe people, with an increasing trend, are inclined to prefer, for their holidays, accommodations in farms, where a closer contact with the culture and the tradition of the chosen country can be achieved, for not citing the evident less economic expenses involved in such kind of preference. In Italy, for example, a rising number of people select this option for their trips, in such way experiencing in a closer manner the cultural heritage of the territory that, particularly in this country, shows a large variety of interesting situations.

Moreover, this approach to the holidays trips, due to the relationships with people living in the chosen areas, does induce a relational tourism, in this way facilitating the cultural exchanges and a deep mutual knowledge between hosting and visiting subjects.

Actually, due to the importance of this compartment in the whole tourism sector, several labels and brands have been issued both at single countries level and at the U.E. level, in the aim of defining criteria and requisites for high quality farm holidays. These labels refer to the services provided to people, to the environmental features and energy performances of the tourist service and of the premises belonging to the farms. The recently issued "Camp Site Service EU Eco-Label Award Scheme" and the Decision no. 287/2003/EC of the European Parliament establishing the ecological criteria for the award of the Community eco-label to tourist accommodation service are important examples of the wide normative activity in this field.

Anyway, as far farm holidays are in context, there is a lack in the current rules, since they essentially take into account only the quality of the services related to the accommodation features: in this way, the whole features referring to the agricultural farm (food products quality, and environmental quality of the food chain) are neglected. This should be overcome in the aim of attributing to the farms a label that reflects, in a comprehensive way, all the services and products that this kind of touristic sites do provide to people.

In the present paper a new approach is proposed that, essentially referring to the existing European labels and brand, allows the attribution of a quality award to holidays farm that in the same time would take into account the environmental and energy performances of the site, along with the quality of the food proposed to people.

The proposed approach will refer to the European Ecolabel scheme for hotels and camp-sites and to a scheme in force in the Tuscany area (Viterbo, Latium). Moreover, for the quality of the food the present approach will refer to the well known food labels (concerning the single product and the chain of production).

By the way, for this new scheme it is needed the implementation of the Environmental Management System of the farm, that makes more environmentally sound the proposed award scheme.

Key words: farm holidays, quality label, environmental performances

INTRODUCTION

According to the UNWTO, the tourism is defined as “an activity of a person who visits a country that is different from the country where usually lives, for a period that is not longer than a year, due to pleasure trip, business trip or other goal which is different from practicing a remunerative activity in the visited country” (Ioannides and Billing 2007).

The tourist sector, involving a big diversity of services and professions, is very important, both from the economic point of view and environmental point of view. The tourist sector, on 2001 (Communication of Commission to Council, to Parliament, to Economic and Social Committee and to Committee of the Regions of 13 November 2001) in the European Union, comprised about two million firms, in particular PMI (small and medium firms), its contribution to the GDP and to the employment was on average around 5 % and it represented (like today) one of the European economy sectors with best prospects for the future.

As regards the temporal evolution, it can be asserted that the tourist demand has been characterized by both a relevant growth process in the world and a relevant territorial diffusion, since 1960 when the international arrivals were about 100 million (Endreoli and Manente 2005), till nowadays, when on 2007 about 800 million international arrivals have been registered. A further increase is predicted for the next years, as described in figure 1.

It is necessary to underline the fact that above foreseen (carried out on 2008) can overestimate the phenomenon, in relation to the investment crisis in which all the world at the moment is involved.

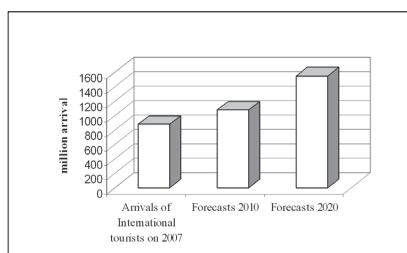


Figure 1. Trend of the arrivals in the E.U. countries with forecasts for 2010 and 2020 (www.turismoefinanza.it)

Regarding the national tourism and in particular with reference to overnight stays of tourists which come from foreign countries, as you can see in figure 2, the greater number of overnight stays is related to tourists coming from Country of the European Union (with 232.611 million overnight stays) followed by America, Europe, extra E.U., Asia, Oceania and Africa (respectively with 49, 43, 11, 7 e 4 million overnight stays) for a total of 350 million overnight stays.

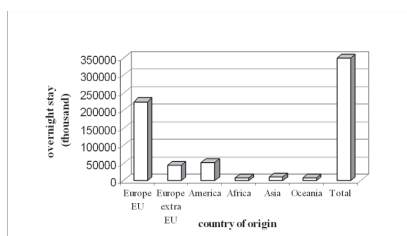


Figure 2. Incoming tourism in Italy, by number of overnight stays and countries of origin. (www.turismoefinanza.it)

SOME ENVIRONMENTAL QUALITY BRANDS AVAILABLE IN EUROPE

At the moment an intensive standardization activity regarding environmental quality brands for the tourist sector is registered, due to the growing interest showed by users, in the performance of this sector. In this process Italy is in the van: the country in fact, is the main responsible for the singling out of criteria for the European Ecolabel brand intended for tourism sector. On the other hand, there are a lot of brands, elaborated at local level which certifies the tourism sector environmental excellence and can be taken into account as example for similar initiatives at European level.

A concise review of these initiatives is proposed below.

The E.U Ecolabel brand for the tourist facilities and camping

The Decision 287/2003 of the European Union (Commission of the European Communities 2003), considers the farm holidays as belonging to the product group "tourist accommodation service" and defines criteria that must be fulfilled by the tourist facility in order to obtain the EU Ecolabel. Such criteria are the same as those required for hotels and others similar facilities.

The criteria aim at reducing the energy consumption provided by fossil sources, at reducing the chemically treated water consumption and the chemical substances inside the detergents and disinfectants, and at reducing the waste, without compromising the service quality level provided to guests. In more detail, the criteria aim to ensure the use of electric equipment and for heating equipment which are energy efficient, to ensure the water saving by suitable devices, to educate the staff in order to have a responsible behavior from the environmental point of view (that is, for instance, to avoid an excessive use of chemical substances, to make a differentiation of waste types and to ensure an adequate disposal). In general, criteria are able to improve environmental performances thanks to combined actions of the director and the staff, and to increase the consciousness of the guests regarding behaviours more respectful towards the environment (APAT 2005).

Among the main criteria, divided in mandatory and facultative, there are the following:

- the environmental efficiency;
- the measurability and verifiability of the observance of the criterion;
- the impact on the consumer perception;
- the expression of the E.U environmental policy;
- the excellence;
- the technical and economic feasibility .

The mandatory criteria must to be satisfied, if they can be applied. for each product/service, the conditions for the criterion applicability are defined in the respective handbook. Regarding the facultative criteria, it is sufficient to reach a stated score, a score from 1 to 3 has been assigned to each criterion, on the basis of its environmental efficacy, technical/economic feasibility and visibility towards consumer.

The minimum score required to obtain the Ecolabel brand is 16,5 points for all tourist facilities which provide only the overnight stay service. It is necessary to add 1 to 16,5 for each additional service that is under the direct management or property of the manager or owner of the tourist accommodation service, included the catering service, fitness activities and the green area benefit, in order to calculate the minimum score required in case the overnight stay service is not the only one provided (APAT 2005).

The AIAB brand for the bio-ecological farm holidays

The biological agriculture is based on the idea of providing to the consumer a product which has produced without chemicals. Therefore, its purpose is to meet the consumer's requirements as to reduce environmental impacts associated to the production of the product. Since the methods of the biological agricultural have environmental impacts hopefully lower than those which are caused by the traditional methods, the biological agriculture brand can also certify a low environmental impact product.

This new brand is usually assigned to the so called "bio farm holidays" which have the possibility to produce and sell biologic agricultural products. The brand, provided by AIAB (Italian Association for Biological Agriculture) since 1998, ensures that those farm holidays are firms which fulfil not only, biological agriculture standards (they must adopt the Reg. 834/2007 (The Council of the European Communities 2007)), but also, ethical and ecological standards regarding the management of the accommodation activities. The last ones are imposed and verified by proper inspections made by the ICEA (Institute for the Ethical and Environmental Certification).

Therefore, the bio farm-holiday is considered as a tool aimed at the integration between environmental protection and offer of tourist services in accordance with sustainability principles, and it is an interesting application of the integrated relational tourism. It in fact, forces the entrepreneur to act in order to conserve the historic, environmental and socio-cultural heritage, and to recovery the rural areas. Moreover, the firm management is aimed at protecting the environment by the energy saving and the rational use of the resources obtainable through the production and use of renewable energy sources. Besides, the bio farm-holiday firm, through the choice of suitable technological solutions, accomplishes a program of water saving, of depuration and recycle of the waste water, provides ecologic (means of) transport to own guests or advises them to choose "slow" mobility".

In particular, regarding the energy management of the bio farm-holiday, some requirements to be fulfilled, concerning some general issues, are reported below.

Company energy plan.

The firm must register all energy consumption (electricity, firewood to be burned, gas oil, methane, etc.) and work out a company energy plan. The accurate knowledge of how energy is consumed, is one good motivation to work out an energy plan or, however, to keep the books of the consumption inside a firm; this fact, obviously, allows to achieve immediate savings and sometimes relevant. The possibility to identify, precociously, the waste causes and so to set up optimum conditions for the saving is another important advantage.

The heating systems.

If a boiler has a thermal efficiency less than 90%, its useful efficiency (that is the average yearly efficiency) can be less than 70%. In these cases, the replacement of the boiler is required, introducing a new one with yearly useful efficiency equal to 90% at least.

The use of carbon or lignite is forbidden (with the exception of charcoal), due to the very low thermal efficiency of their combustion and the big amount of polluting substances introduced in the air (SO₂, soot, etc.).

The heating system must be equipped with an automatic and thermostatic on-off switches device (that is, it must be able to reduce heating during the night hours and to provide the possibility to regulate the temperature in each zone of the building).

A sufficient thermal insulation of the boiler, of the hot water boiler, of heating system pipes and drinking water pipes must be guaranteed, (isolating the hot water from the cold one).

Curtains, fittings and others articles must not hamper the air movement in front of thermo siphons.

Lighting systems and electric equipment.

High energy efficiency lamps, hourly on-off switches or photoelectric cells for the permanent lighting, must be used.

If necessary, low energy consumption devices (refrigerators, freezers, office equipment, etc.) and low water consumption devices (washing machines, dishwashers, etc.) must be bought.

The peculiarity of this brand is the synergy of the double certification which assigns a strategic role to the environmental variable in the farm holiday. The brand aims, indeed, to integrate the tourist activity and the rural context. Therefore, the firm has also a function of territory, landscape and environmental quality protection.

Moreover, the agricultural firm, through the farm holiday, can communicate “knowledge” and “skills” regarding the superior quality of the biologic products, contributing both to their making the most and to consumer education towards purchase of biological products. It is clear that the consumer is satisfied when the biological certification is put together with the certification of traditional and reliable production process, which is foreseen in regulations for DOP award (Protected Origin Denomination) and IGP award (Protected Geographical Indication), so joining the taste quality, the food safety and the local traditions (Platania and Privitera 2009).

Therefore, the AIAB certification, compared with the EU Ecolabel, evaluates both the right environmental management of the hotel accommodation services and the environmental quality of the product since it takes into account also the production of biological products, in the agricultural firm context. Nevertheless, such certification doesn’t identify possible interactions between two main components of the system, that is agricultural firm and tourist facility. These interactions could improve the environmental performance of the “farm holiday” system.

The coupon of Tuscia ecologic farm holiday

Another interesting brand has been proposed by the Agriculture, Hunting and Fishing council department of the Viterbo province, which has singled out some criteria for applying an environmental quality stamp to farm holidays (Provincia di Viterbo 2004).

The brand is recognized only at local level and has not been proposed to substitute others brands of environmental quality (like the E.U. Ecolabel or the product ecological labels belonging to the set ISO). It would represent an instrument to encourage the environmental sustainability in a sector which lives thanks to territory resources and it can play an important role in the policies of increase in value of the product itself. In this work it has been taken into account because it is a brand which can be applied only to farm holidays and, for this reason, it can allow to identify some typical peculiarities of this kind of tourist facilities.

The procedure used for attributing the above mentioned brand is almost like the procedure used for attributing the EU Ecolabel: there are criteria, some mandatory and others facultative, which define the requirements that must be fulfilled by the farm holiday in order to be eligible for this brand.

A score system assigned to criteria doesn’t exist, unlike the EU Ecolabel: three different environmental performance levels are identified for the service on the basis of the number of facultative criteria with which the farm holiday is in accordance. This fact leads to define three environmental quality levels recognizable by different colours of the coupon (blue, green and gilt, if respectively at least 35, 45 or all facultative are observed).

Moreover, the above coupon, like Ecolabel, aims at:

- reducing the energy consumption;
- reducing the water consumption;
- reducing the waste;
- promoting the use of renewable sources and environmentally compatible substances;
- enhancing the rural and traditional architecture in keeping with the surrounding landscape;
- promoting the environmental communication and education.

The regulation for attributing the brand (Provincia di Viterbo, 2004) is divided into 8 areas:

1. *WATER*
2. *ENERGY*
3. *WASTE*
4. *DETERGENTS, DISINFECTANTS, PAPER PRODUCTS*

5. *CATERING & PRODUCTS SALE*
6. *FACILITY AND EQUIPMENT*
7. *TOURIST SERVICES*
8. *TRANSPORT SERVICES AND ROAD NETWORK*

Each area is characterized by mandatory and facultative criteria, by which can be argued that such criteria identify some areas which are not taken into account in the European brand.

In particular criteria which belong to "catering and products sale", "facility and equipment", "tourist services" and "transport services and road network" areas, can be considered particularly suitable to be applied to farm holidays. It has to be underlined (Provincia di Viterbo 2004), that some criteria belonging to the just mentioned areas, don't contribute to improve the environmental performance of a farm holiday but focus attention on service typologies provided by the facility and on the relation between tourist facility - territory (in particular, criteria relate to "tourist services" section).

In short, the main differences between the above mentioned brands, are:

- the Ecolabel brand evaluates only the accommodation service component of the firm, neglecting all environmental aspects linked to activities which take place in the agricultural firm to which the tourist facility is added. In this way, environmental impacts due to the primary production of the materials and the energy, are not considered: such limit could cause an important undervaluation of environmental impacts due to the whole farm holiday.
- the "bio-ecological farm holidays" brand (proposed by AIAB) is able to overcome partially this limit, paying attention to biological products production inside the agricultural firm to which the tourist facility is added.
- the "Tuscia ecological farm holiday coupon", instead, meets the consumer requirements, both from the environmental performance point of view of the tourist facility and from the services and products point of view, which are provided to the guests. However, it neglects the environmental performance of the provided services, although pays great attention to the relation with the territory and the local traditions.

THE QUALITY BRANDS OF THE FOOD SECTOR AS BASIS FOR FOOD QUALITY CRITERIA OF A FARM HOLIDAY PRODUCTS

It has been argued the importance of the agricultural firm in the complex system of the farm holiday, both from the environmental impacts point of view and the relation with territory, local traditions and rediscovery of recipe point of view. Such role, assigned to the agricultural firm, becomes more important if the primary production is subjected to processes of manufacture and is provided to guests. Therefore, this aspect has not to be neglected.

Besides, the analysis of the current quality brands of the farm holiday sector, makes clear that new criteria have to be introduced in order to take into account the foodstuffs coming from the farm holiday itself.

With regard to this, it can be referred to consolidated brands of the food quality sector (DOP, DOC, IGT, etc.), besides the more advanced regulations of this sector (which provide the traceability chain and the firm's traceability). Therefore, a new possible brand could be obtained by the sum of criteria already in progress for farm holidays and those refer to food component of the firm.

As it is known, at the moment there are several declarations, referring to the origin of the product. A lot of these, are brands which have been designed by the European Union on the context of the Reg. EEC n. 2081/92 (Commission of the European Communities 1997), in order to promote and protect products.

A brief review of these brands is reported below.

DOP: denomination of protected origin.

It is a brand aims at protecting the denomination and the origin of the product, is assigned to those food

whose qualitative characteristics depend, essentially or exclusively, on site in which they are produced. The geographic environment includes both natural factors (climate, environmental characteristics), and human factors (production techniques handed on in time, craftsmanship, savoir-faire) which, together, allow to obtain a product that can't be imitate outside a stated productive area. In order to make a product eligible for the DOP quality food brand, the phases of the production, the transformation and the manufacture must take place in a delimited geographic area. There is a production regulation that defines the requirements that must be fulfilled by who produces DOP products, and there is a control body that ensures that such requirements have been fulfilled.

IGP: protect geographic indication

It is a brand of origin, attributed to those agricultural produce and foodstuffs for which a stated quality, reputation or another characteristic depends on the geographic origin, and whose production, transformation and/or manufacture take place in a stated geographic area. So, in order to make a product eligible for the IGP quality food brand, at least one phase of the productive process must take place in a particular area. There is a production regulation that defines the requirements that must be fulfilled by who produces IGP products, a control body ensures that such requirements have been fulfilled.

STG: guaranteed traditional speciality

It is a brand of origin introduced by the European Commission, that aims at protecting products whose composition and manufacturing techniques are traditional. This certification, unlike others brands as Denomination of Protected Origin (DOP) and Protect Geographic Indication (IGP), is addressed to agricultural produce and foodstuffs that are characterized or by a particular manufacturing technique or by a particular composition which is typical of a given area, even if they are not produced in this area. Therefore, in order to attribute an Ecolabel brand to farm holidays, the STG brand is not eligible to be applied, because it doesn't certify a connection with the territory in which the foodstuff is produced.

DOC: denomination of controlled origin

The DOC brand is another brand which it is possible refer to, in order to identify the excellence performance of a farm holiday. It is an Italian national brand, which is attributed with decree to those foodstuffs that come from a limited area, in which they are produced by local raw material in accordance to traditional uses. Besides the production regulation, the decree defines the physical, chemical and organoleptic characteristics, and states that a graphic symbol (brand) is assigned to those products which fulfill the requirements, necessary to obtain this brand. Today, the DOC brand, initially for wine and cheese, can be attributed also to various kinds of cold meats and salami, olive oil, fruit and vegetables.

It is clear that the common characteristic of all above mentioned brands is the product typicality and no its environmental performance. Therefore, such brands haven't a great importance, in order to attribute an environmental quality brand to farm holidays, but however they can be considered (except SGT) due to their strong connection with the territory

REGARDING THE POSSIBILITY OF ATTRIBUTING A NEW ENVIRONMENTAL EXCELLENCE BRAND ADDRESSED TO FARM HOLIDAYS

In the light of what has been said previously, it is clear that a brand, which is able to take into account the integrated environmental quality of farm holidays, doesn't exist yet.

As a matter of fact, the environmental evaluation tools available, don't consider the substantial difference between the tourist facilities as hotels, and the farm holidays. The last ones, as it has been just said, are tourist facilities added to agricultural firms, unlike hotels. The boundaries of the "farm holiday system" are

also very different from ones of tourist facilities. Moreover, in farm holidays an important role is played by the foodstuffs quality.

These considerations have led to three remarks:

- it is necessary to design a new environmental quality brand for farm holidays which, starting from those already in progress for such kind of services, considers also the foodstuffs provided from the farm holiday;
- it is necessary to evaluate if, eventually, neglecting the impact due to the component of foodstuffs, results in a strong simplification of the whole pressure exerted from the farm holiday on the environment;
- it is necessary to implement an environmental management scheme for the agricultural firm, as a first step towards the improvement of the environmental performance of the processes which are involved in the firm.

As already said, the farm holiday is characterized by a close connection with the agricultural firm (without which it can not exist), unlike the others typologies of tourist facilities. The close relation between such two components can lead to a more effective environmental management (and sometimes also economic management) of mass and energy fluxes between these two systems.

More in detail, for instance, three areas for the exchange between these two components of a farm holiday, can be identified:

- the waste water;
- biomass surplus;
- organic waste.

The figure 4 shows an example concerning the fluxes to be manage by a suitable Environmental Management System in a farm holiday, which wants to have an integrated approach to its environmental performance. Obviously, a detailed and covering all life cycle (LCA) analysis of farm holiday activities is necessary for such an integrated environmental management of the farm holiday, in order to adopt an instrument which is commonly recognized and has an objective validity.

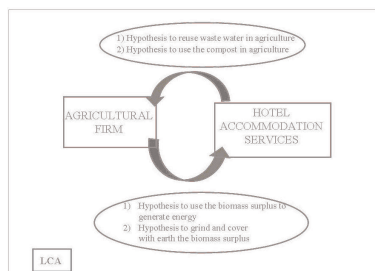


Figure 4. Typical exchanges between agricultural firm and accommodation services premises in farm holidays.

CONCLUSIONS

Finally, in order to define a new Ecolabel brand for farm holidays is necessary to:

- evaluate the environmental impact of the agricultural activity;
- underline that the necessity of an integrated approach to the problem comes from the evaluation of the environmental impact due to agricultural activity;
- single out criteria which take into account those criteria which are already in progress in others environmental quality brands for tourist services, in order to define a procedure addressed to farm holidays.

In other words, in order to assess, in an integrated way, the farm holiday performance, it is necessary to define an environmental quality brand which considers not only the accommodation service, which is typical of hotels, but also the foodstuffs (coming from the firm itself or bought by local suppliers), because the last ones belong to the whole offer of services to guests. Moreover, regarding the foodstuffs performance, it has to be underline that, the essential quality of foodstuffs has not to be neglected, besides to their environmental quality, in order to avoid that some poor quality levels (for instance organoleptic quality ones) can cause the exclusion from the market of eco compatible products. Moreover, it is necessary to define evaluation procedures which assess the environmental performance of the farm holiday (in particular with reference to energy, waste and water management), in the light of an approach that simultaneously provides benefits to two main components of a farm holiday (tourist facility and agricultural firm).

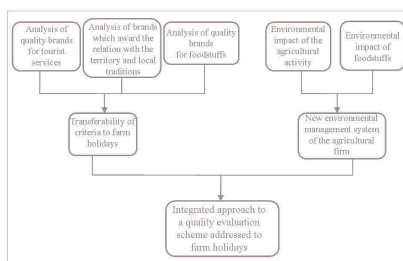


Figure 5. Step to be accomplished for the singling out of a new environmental label for farm holidays.

Essentially, it needs to follow the procedure described in figure 5, where all components of qualitative performances of a farm holiday are underlined. Finally, it is interesting to notice, how it has been already observed in this work, that current quality brands, available separately for each farm holiday performance, can usefully be used in order to reach an integrated approach of the assessment of these important aspects of the relational tourism.

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APPENDIX

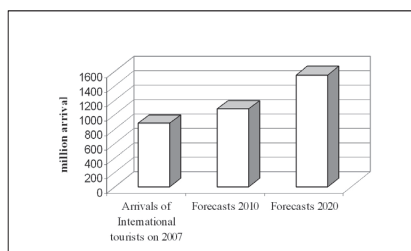


Figure 1. Trend of the arrivals in the E.U. countries with forecasts for 2010 and 2020 (www.turismoefinanza.it)

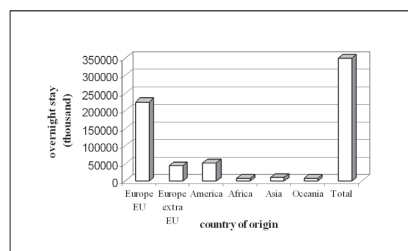


Figure 2. Incoming tourism in Italy, by number of overnight stays and countries of origin.

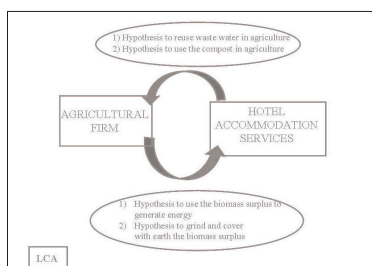


Figure 4. Typical exchanges between agricultural firm and accommodation services premises in farm holidays.

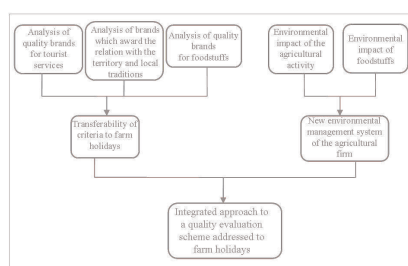


Figure 5. Step to be accomplished for the singling out of a new environmental label for farm holidays.

SIWA OASIS, A NEGLECTED PARADISE

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Abstract

Santariya by the ancient Arabs, the Oasis of Jupiter-Amun, Marmaricus Hammon, the Field of Palm Trees and Sekht-iam by the ancient Egyptians are all names given to Siwa Oasis over the millennia.

Siwa is an oasis in Egypt, located between the Qattara Depression and the Egyptian Sand Sea in the Libyan Desert, nearly 50 km east of the Libyan border and 560 km from Cairo. It is a broad depression in the desert of western Egypt, 300 kilometers southwest of the Mediterranean port city of Mersa Matruh. This vast depression, that averages about 20 meters below sea level, is a sea of green palms, olive trees, mosaic of lakes and villages.

Siwa owes its existence to an abundance of permanent fresh-water springs that permit intensive cultivation even without human intervention, but not with crops. The land would be covered with coarse grasses and various salt-resistant desert plants, with palm groves only in favored places.

Siwa, is one of Egypt's isolated settlements with around 20,000 people, mostly ethnic Berbers who speak a distinct language of the Berber family known as Siwit. They once roamed the North African coast between Tunisia and Morocco. They inhabited the area as early as 10,000 BC, first moving towards the coast, but later inland as other conquering invaders arrived. Hence, Siwa is more North African sometimes than Egyptian and their language, traditions, rites, dress, decorations and tools differ from those of the other Western Oasis.

The area was occupied as early as Paleolithic and Neolithic times and its history dates back to the ancient Egyptians. However, there have been no monuments discovered dating from the Old, Middle or the New Kingdoms. It may have been colonized during the reign of Ramesses III, but evidence only exist beginning with the twenty sixth Dynasties that it was part of the Egyptian empire. It was then that the Gebel el Matwa Necropolis was established, which was in use through the Roman Empire. In fact, some sources claim that it remained an independent Sheikhdom ruled by a Libyan tribal chief until the Roman times.

The importance of Siwa increased during the end of the ancient Egyptian empire due to the temple that was built to honor the ram-headed sun god Amon-Ra and which housed a divine oracle whose fame, by about 700 BC, was widespread in the eastern Mediterranean. After conquering the Persians, Alexander the great headed for Siwa to consult the famous Oracle of Amun and to legitimize his conquest of Egypt. The oracle confirmed him as both a divine personage and the legitimate Pharaoh of Egypt.

Despite its important historical background, that extended from Pharaonic Egypt till the Roman Empire, its important monuments, its cultural uniqueness, isolation, great natural beauty and authenticity, Siwa remained a neglected paradise.

This article will include an in depth study of the historical background of Siwa Oasis, that will evolve till the present day, shedding light on the socio-economic aspects that pertain to the Egyptian identity. The study will be concluded by some of the steps that have been taken to try and develop Siwa to become a major touristic attraction for its authenticity, genuineness, heritage and beauty.

Key words: (Siwa Oasis, Oasis of Jupiter-Amun, the Santariya, the Field of Palm Trees)

INTRODUCTION

The world famous "Oasis of Amun", better known nowadays as Siwa or Seewah as pronounced by its inhabitants, (Fakhry 1950), was once the most mysterious and most fascinating of all Egyptian oases. Until recent times, Siwa was Egypt's most inaccessible oasis, for until around the middle of the 20th Century, it wasn't even governed by Egypt, but was mostly occupied by the Berber community, as it had been for the past 13 centuries. Siwa holds a special appeal for many travelers on account of its isolation, unique character, natural beauty and its historical associations; nevertheless it is not listed among the important tourist destinations in Egypt.

Name

This oasis was given different names over the millenniums. During the 15th century, this oasis was called by Arab writers "Santarieh"¹, a name that was totally forgotten during the 17th century and replaced by the name "Siwa." During the Greco-Roman period the oasis was referred to by the Greek authors as the "Oasis of Jupiter-Ammon" after the famous temple of the oracle located there. (Fakhry 2005)

During the Greco-Roman period its name appeared in the famous text² of the Seven Oases on the temple of Edfu which mentioned Siwa as the seventh oasis³. Unfortunately, its name is partially erased and nothing remains except the first part of it which must have started with the word "Pn Ta". Also it wasn't preserved in any of the texts inscribed on other Greco-Roman temples. (Fakhry 1944)

In Siwa itself, its name was mentioned several times on different monuments. It was mentioned three times in the Temple of Umm Ebeida and twice in the tombs of Si-Amun and Mesu-Isis of Gebel el Mawta. The name could be either read as T Ay or TA which is similar to the part that still exists on the temple of Edfu. Thus Siwa oasis or at least its principal town was known as T Ay or TA in hieroglyphics. Also, it should be mentioned that the ancient Egyptians referred to the Oases of the Western Desert using the name skhet-iam that means the "Field of the Palm trees"⁴. (Fakhry 2005)

Location

Siwa lies in the heart of the Western Dessert of Egypt nearly 50 km east of the Libyan frontiers and 300 kilometers southwest of the Mediterranean port city of Mersa Matruh. It is the northernmost oasis among a string of oases that extend from Egypt into the middle of Tripoli. These "Islands of the Blessed," as they were called in ancient times, are natural depressions surrounded by limestone cliffs and are made fertile and habitable by a number of water springs. Siwa consists of a little group of oases in a depression (Belgrave 1923) that extends about 82 km long from east to west and of a breadth of 9 km at the west and reaches 28 km in the east. Its western boundary begins at al Maraqui and it's eastern at al Zaytun; thus the town of Siwa is at the center lying about 24 meters below sea-level. (Fakhry 1973)

Climate

Siwa, being a depression in the middle of the desert, enjoys an arid climate, meaning that its weather is ideal in winter; between November and March but it is hot and humid in summer; between April and October. (Fakhry 1944)

The Siwans

The Siwans are originally a mixture of Berber, Bedouin and Sudanese races and the characteristics of these

¹ The name Santarieh is of an unknown origin and it was used side by side with the name Siwa for a short time then it totally disappeared. (Fakhry 1944)

² The text mentioned that the god of this oasis was god Amun and it also mentioned that Horus and his mother Isis were worshipped there.

³ These oases were numbered according to their distance from Edfu

⁴ This name is very similar to "Countries of Palm Trees" a name used by the Arab authors to refer to these oases.

racess both physical and moral are easily detected among them. Since ancient times they were distinct from the Egyptians and closely related to the people of North Africa. (Fakhry 1944)

They speak among themselves their own language which is one of the Berbers dialects, known as Siwit⁵, (Fakhry 1973) The Siwans still preserve many of their old customs and traditions which continued till this present day, owing to the remoteness of the place and the slight communication between Siwa and the outer world. (Belgrave 1923)

The men at Siwa are dressed according to their social position, the rich people and the Sheikhs imitate the chiefs of the Libyan tribes as they put the fez over their heads and they wrap their bodies using the wide silk or wool "hram". However, the ordinary dress of the Siwan men is the wide, white linen dress known as gallabieh. (Fakhry 1950)

As for women⁶, they all wear dark clothes and wrap themselves from head to toe in a wide black sheet of cloth called "milaya" when they go out. At home, women pay great attention to their personal adornment as they wear bright colorful dresses and ornaments in the form of colorful glass beads, silver bracelets, necklaces and earrings. (Fakhry 1944)

The Town

The ancient city of Siwa was originally at Aghurmi, where the remains of the three monuments of the Oasis still stand; the Temple of the Oracle, the Temple of Umm Ebeideh (another temple of Amun) and the "Spring of the Sun." (Fakhry 1971)

During the end of the 12th century, immigrants from the Berber tribe of North Africa settled in the Oasis among the older population. They were continuously attacked by the Arab Bedouins, the thing that greatly damaged the ancient town and caused the immigrants to build a new fortified settlement for themselves. According to the Siwan Manuscript, this new settlement, which is the present day town of Siwa, was founded in the year 1302 A.D. and was called "Shali" which means "town" in the Berber language. All the houses at Shali were built inside a strong surrounding wall that had only one entrance for the purpose of defense. (Fakhry 1973) As the Siwan population increased, each family would add one floor on top of their home to accommodate other family members, but no one was allowed to build a house outside the fortified walls of Aghurmi or Shali.

All this changed in the year 1820, when Siwa was conquered by the troops of Mohammed Ali, as the Siwans were no longer threatened by the Bedouin attacks which encouraged some of them to built new settlements outside the fortified cities. In 1926, an unusually heavy rain showered Siwa and continued for three days, causing many of the houses in Shali and Aghurmi to collapse, especially that these houses were built with "karshif"⁷. Since then, the Siwans abandoned their ancient houses and they built new healthier ones at the foot of the hills. (Fakhry 1973)

Nowadays visitors enjoy visiting these abundant ancient cities which can be described as a "bee -hive" as the streets⁸ of these cities were very narrow, dark and roofed while the houses were built one on top of the other against the slope of the hill. (Fakhry 1950, 7)

Land and Economy

When the scholars first found the oasis they mentioned that "it was full of pleasant fountains, watered with

⁵ It should be noted that today; almost everyone understands Arabic as a second language. However the influence of Arabic is increasing and more Arabic words and expressions are introduced and added to the Siwit, the thing that will eventually lead to its distinction.

⁶ The Siwan women do not cover their faces with veils instead when they meet a stranger they cover their faces with part of the "milaya".

⁷ Karshif, is a building material very similar to cement, made from the mud taken from salt- impregnated soil.

⁸ The description of these towns and the names of its streets are still known to us nowadays from the Siwan Manuscript. (Fakhry 1971)

running streams, richly planted with all sorts of trees bearing fruit, surrounded by a vast dry and sandy desert (Belgrave 1923). Siwa owes its existence to an abundance of permanent fresh-water springs that permit intensive cultivation. (Fakhry 1950) According to the ancient writers, it used to have a thousand springs, but nowadays they are about 200, of which 80 are important. (Fakhry 1950) These cultivated areas produce many kinds of fruits,⁹ as well as vegetables and seeds¹⁰ in small quantities. However, the main products that they produce are the dates and the olive oil. There are about 40,000 olive trees which produce good quality of oil and about 200,000 fruit bearing palm- trees which produce different types of good quality dates. This means that the Siwan men mainly work in agriculture. (Fakhry 1973)

HISTORICAL BACKGROUND

Many Archaeologists believe nowadays that Siwa oasis was inhabited in the Paleolithic and Neolithic times, as a collection of flint implements were found there. and after being studied they proved that they closely resemble finds in parts of Algeria, Morocco , Cyrenaica, Nubia and parts of Egypt that were definitely associated with industries of the Upper and Final Paleolithic Age. Thus the culture of the inhabitants of Siwa can be identified with both the countries of west Egypt and with the culture of the Nile Valley. (Huzayyin 1941)

From the First Dynasty, ancient texts refer to the inhabitants who lived to the west of the Nile Valley as the Tahenu¹¹ (olive land) and it seems that the people of the Tahenu came as immigrants in large numbers to settle in the fertile lands of the Nile Valley, but they were driven back to their land by the King. Archaeologists nowadays believe that the land of Tahenu extended to include the Oases of Siwa, Bahriyah and Barqah in Libya. The Tahenu were then replaced by the Temehu, whose name appeared for the first time in the ancient Egyptian texts during the Sixth Dynasty, reign of King Pepi I (Fakhry 1950)

There is no doubt that Wadi el Natrun and the four Oases of Bahriyah, Farafra, Kharga and Dakhla were completely Egyptian and were under the Egyptian control even before the sixth Dynasty and were visited by Egyptian patrols during the Middle kingdom. However there is no evidence that this also applies to Siwa as it lied further to the west than these oases especially that no monuments of the Old, Middle of New Kingdoms were found in Siwa. Also its name was not mentioned in the text of the Libyan wars or in any document dating from the 22nd Dynasty. (Fakhry 2005)

The oldest monument in Siwa is the Temple of the Oracle of Amun which dates back to the 26th Dynasty, reign of Amasis. However, Fakhry claims that the Oracle of Amun in Siwa was already famous all over the Mediterranean countries by the 26th Dynasty, which means that it must have originated some time during the 21st dynasty. (Fakhry 2005)

In 524 BC Cambyses dispatched from Luxor an army of 50,000 men to destroy the Siwan oracle The entire army vanished without a trace, buried in the seas of sand between Siwa and the inner-Egyptian oases, and no sign of it has been found even to this day. Such an apparently supernatural victory must have enormously increased the prestige of the oracle throughout the region, (Larsen 1988)

The oracle therefore, received many visitors; however the most illustrious visitor to Siwa was undoubtedly Alexander the Great, who visited the oracle at Siwa, probably to imitate the pharaohs of Egypt's 28th Dynasty who traveled to Siwa to be acknowledged at the temple, as the son of Amon-Ra. The visit of Alexander the Great has immortalized the name of the small oasis, to the extent that it had been referred to since then as "the Seat of the Oracle of Jupiter Amun". (Fakhry 2005)

With the coming of Roman times, oracles went out of fashion; however, Cleopatra VII may have also visited this
⁹ Like; grapes, apricots, figs, lemon, pomegranate and peaches.

¹⁰ Like tomatoes, cucumber, garlic, rice, maize, barley and beans.

¹¹ The Tahenu were probably the same race as the Egyptians as they were brown in color, they shared many similarities with the Egyptians and they even used the same names. All this was detected from the famous scene at the temple of Sahure at Abusir. It is believed that their descendants live nowadays in the west of Sudan and the southern desert of Libya.

Oasis to consult with the Oracle, as well as perhaps bathed in the spring that now bears her name. Augustus sent political prisoners to Siwa so it too, like the other desert oasis, became a place of banishment. When the traveler and historian Strabo visited Egypt in 23 BC he could note that the oracle of Amon had lost almost all importance, though doubtless Siwa continued to worship its ancient god and the priests continued to offer Amun till the advent of Islam. (Larsen 1988)

Christianity had a difficult time establishing itself in this Oasis, and most sources believe that it did not. However, Bayle St. John says that in fact the Temple of the Oracle was actually turned into the Church of the Virgin Mary. This is understandable given that along with political prisoners, the Romans banished church leaders to the Western Oasis, including Siwa. (Fakhry 2005)

Islam found its way into Siwa and therefore the inhabitants converted to Islam. According to "Al-Idrisi"¹², he mentioned that the oasis was inhabited by Muslims and had an Imam. Moreover, during the 13th century till the 19th century, some of the pilgrims of North Africa preferred the ancient caravan route via Siwa in their journey to Mecca, as it was shorter and safer. During the rule of Muhammad Ali, he decided to seize control upon the oases of the Western Desert before conquering Sudan.

Since the famous visit of Alexander the Great till the time of Khedive Abbas II no ruler visited the oasis. Moreover, Khedive Abbas II decided to make some agricultural projects in Siwa. Furthermore, both King Fouad and his son Farouk visited Siwa by car using the same route of Alexander the Great. (Fakhry 2005).

TOURISTIC ATTRACTIONS

Siwa was regarded as the principal island in a desert archipelago containing several oases. Siwa attracted many visitors by its great reputation in ancient times. It contains several monuments, which are considered the secrets of Siwa:

1. Aghurmi, the oldest fortified town.
2. The Oracle Temple of Amun, which contained one of the oldest oracles in the world, made for Alexander the Great.
3. The Temple of Umm Ubaydah dedicated to god Amun, which contains ancient inscriptions, scenes and stone pillars.
4. The tombs of "Jabal El Mawta" or "Mountain of the Dead" where the mummies still survives.
5. Cleopatra's Bath or Pool where the brides would swim before their wedding.
6. Dakrur Mountain where the peace festival is held every year.
7. Rock Tombs scattered around the oasis belonging to the Roman era.

The Oracle Temple of Amun

The Oracle Temple was known by the Egyptians as: "Sakhit Amouou", "the Field of Palms", referring to its place among groves of palm trees. It is located at Aghurmi about four kilometers from the center of the town of Siwa. There are many legends related to the founding of this temple; the most famous one mentioned; that there were two black priestess¹³ who came from the temple of Amun at Thebes, were banished to the desert, one of them founded the Temple of Dodona in Greece, while the second one came to Siwa where she became the sibyl of the Oracle. (Vivian 2000).

The Temple dates back to the reign of king Amasis one of the kings of the 26th dynasty, who decided to make Siwa the defense line of Egypt's western frontier which might face attacks from Cyrene or Greek colonies in Libya. (Fakhry 1971). This made Siwa very prosperous during his reign.

This temple is built over a large rock in the middle of the crumbling walls of the houses of the old village. The façade of the temple is hidden under the walls of the houses of the village; even the temple was inhabited by several families. Immediately, in front of the temple there is a court but only its northern and

¹² An Arab geographer.

¹³ Other legend describes them as doves.

eastern walls still exist. In this court the processions of the god took place. According to the plan of the temple the main entrance lies in the southern corner. Additionally, there is another large chamber on the western side. The façade¹⁴ is originally designed in the late-Egyptian style. During the Ptolemaic period they made some alterations, they built on each side of the entrance a wall and in front of it a half-column of fluted Doric type. (Fakhry1950)

The first court,¹⁵ has two niches; The western niche is slightly larger. At the northern end of the west wall there is an entrance, which is decorated by a cavetto cornice. This entrance is considered to be the principal passage, which connects the temple with the other buildings.

The second court has light openings near by the ceiling and a crypt. They used to call the temple "El Khazeenah" meaning "the safe."¹⁶ The rear wall has three doors, the eastern one leads to a small narrow chamber, and the western leads into a bigger chamber while the central one gives access to the sanctuary (cella). The sanctuary or the cella¹⁷ is considered to be the only inscribed place in the temple.. Its walls are badly damaged by the seekers of the legendary treasure.

The reliefs and inscriptions mainly covered the inner sides of the entrance and the two lateral walls. The main scene¹⁸ represented on one side the figure of King Amasis appears wearing the red crown and presenting round vases of wine to eight divinities that were: Amun Re, Mut, Teten-Amun, Tefnut, Herishef, Mut, Thoth, and his consort Hebenu. On the other side the King was replaced by the governor of Siwa¹⁹ who appeared with an ostrich feather in his hair showing his Libyan origin. (Fakhry 2005)

The Temple of Umm Ubaydah

This temple is known as "Umm Maabad" which means "the mother of temple"; or "The place which has a temple." It is the second temple to be dedicated to god Amun. It was joined to the Temple of Oracle by a causeway and therefore it was related to the rituals of the oracle and the god.

The temple was built during the reign of king Nectanebo II, dating back to the 30th dynasty (Vivian 2000). It was built by "Wenamun" who was given the title of "the Great Chief of the Desert", thus was probably the ruler of the oasis. This temple was dedicated mainly to god Amun-re in the first place as he appeared in most of the scenes together with his consort Mut. Beside the depiction of Amun-re and Mut other deities were represented such as: Khonso, Atum, Shu, Tefnut, Seth, Geb, Horus, Nekhbet, Khnum, Wadjet, Osiris, Isis, Horus-the-child, Anubis, Min, Sobek, Sekhmet, Maat, Thoth and Nefertum, and some foreign deities. (Fakhry1971)

In the sanctuary, the only existing wall contains a long text of fifty-one lines and three registers depicting different deities. At the top of the wall there is a repetition of the cartouche of the king being protected by goddess Nekhbet, the vulture goddess. Below the texts there are three rows of different deities represented in high relief. The scene at the top depicts the builder of the temple, the ruler of Siwa in a kneeling in front of god Amun who is seated inside a shrine. At the bottom one can see five gods depicted with various kinds of scepters. (Fakhry 2005)

The appearance of the text of the rite of the Opening of the Mouth on the walls of the temple is regarded as something unique as usually this text used to be inscribed on the walls of the tombs, on papyri, or on coffins as it is related to the burial ceremonies.²⁰



14 It measures about 8 meters high.

15 It measures 7.74 meters in length and 4.95 meters in breadth

16 They believed that the legendary king "Khorebeesh" who was the last pagan king of Siwa was buried in this temple together with all his valuable treasures, which were thought to be kept in this crypt.

17 It measures 6.1meters in length and 3.3meters in width

18 A similar scene appeared at Bahriyah oasis, the governor walks behind the king at the same side. This reflects the high rank of the governor of Siwa and the great significance of the oasis.

19 The governor of Siwa was called "Sutekh-irdes"  son of Rerwatneb, he held several titles such as:  which means the "Chief of the desert-dwellers".

20 The Opening of the Mouth ritual was performed on the mummy by the lector-priest. For more details see Blackman, A., "The Rite of the Opening of the Mouth" in J.E.A. 10:47ff; and Baly, J.C., "Notes on the Ritual of the Opening of the Mouth" in J.E.A. 16:137ff.

The Tombs of Jabal Al-Mowta

Jabal Al-Mowta²¹ can be literary translated as “The Hill of the Dead”, or “The Ridge of the Mummified”. It is a conical limestone mountain honey-combed on all sides with rock tombs. It lies around one and a half kilometer from the center of the town of Siwa. Most of the tombs are small consisting of one or two chambers, while the large tombs consist of several chambers and columns. The tombs date back to the 26th dynasty, Ptolemaic Period and Roman Period. (Fakhry 1950)

There are four great tombs worthy of seeing at Jabal al-Mowta:

1.The Tomb of Niperpathot:

It is the largest and oldest tomb in the cemetery. It dates back to the 26th dynasty. The owner of the tomb is “Niperpathot”, his name means: “the one who belongs to the house of Thoth”.(Fakhry 71) It consists of a court, six chambers and a small decorated burial chamber. The most significant scene is depicting the ceremony of the “dragging of the four calves.”²²

2.TheTomb of the Crocodile:

It is a small tomb consisting of three rooms, its walls and ceiling coated with a layer of plaster. Its owner is unknown, but it dates back to the Late Ptolemaic or early Roman Period. The significance of this tomb lays in the fact that god Sobek is represented among the scenes which might in turn reflects the idea that the cult of the crocodile-god Sobek had existed in Siwa.

3.The Tomb of Mesu-Isis:

It was an unfinished tomb²³, as the walls were not decorated and even the burial chamber was not completely cut out of the rock the name of Mesu-Isis is the name of the wife of the owner of the tomb, but the name of the owner is damaged. The importance of this tomb is the appearance of the ancient name of Siwa “Tha” being inscribed on the walls of the tomb.

4.The Tomb of Si-Amun:

It is considered the most beautiful tomb not only among the tombs of Siwa, but also among all the tombs of the oases of the Western Desert (Fakhry, 1973). His name Si-Amun means “the man of Amun” is inscribed on the walls of his tomb. Si-Amun was a rich half-Greek who settled at Siwa. (Fakhry1944). The significance of the tomb lies in the fact that it is beautifully decorated and painted with images from the Egyptian pantheon, but the most famous scene is that of goddess Nut nearby the sycamore tree. (Vivian 2000)

Cleopatra’s Bath or Pool

Siwa is famous for her springs throughout the Western Desert. The majority are surrounded with palm groves and some interesting stories. Siwa have dozens of springs where the travelers can bathe, but only one is considered the most famous which is Cleopatra’s Bath.²⁴ (Vivian 2000)

²¹ It is believed that this area contains emerald mines and Hornemann mentioned that the Siwans found gold inside the tombs. (Fakhry 1950)

²² This type of scenery appeared since the Old Kingdom on the walls of the temples and on the walls of the tombs during the 18th dynasty.

²³ It lies 20 kilometer to the east of the tomb of Si-Amun and dates back to the period between the fourth and second centuries BC.

²⁴ It has been mentioned since the time of Herodotus. The legend mentions that Cleopatra had visited the oasis and she swam in this spring. That’s why everyone who comes to the oasis prefers to swim in this spring.

CONCLUSION

Siwa's isolation has been broken only recently by the construction of asphalt roads connecting Siwa and Qara to Marsa Matruh, some 300 km away. As the people of Siwa confronted the modern world, both their culture and their environment were exposed to the risk of disruption. The Government and the private sector have invested in oil and gas production, large-scale agricultural projects and small-scale industry such as bottling mineral water. However Tourism remained under development as Siwa remained till the present day not a heavily trafficked tourist destination despite the fact that, it is appropriate for undertaking different types of tourism such as; Ecotourism, Cultural tourism, Desert Safari and Health tourism.

One of the major projects is known as the "Siwa Oasis Environmental Amelioration Project," which is part of the wider Egyptian-Italian Environmental Program, referred to as the Egyptian-Italian Environmental Cooperation Program (EIECP) that is being carried out within the framework of donor initiatives aimed at assisting the Country in the implementation of the National Environmental Action.

Siwa has been one of the major objectives of this project due to its dune fields, gravel plains, saline lakes, cliffs and scattered acacia groves that give the region a rich variety of landscapes and provides a diversity of flora and fauna.

The Project has specific objectives:

Establishment of a collaborative management system for the Protected Area in Siwa region, to preserve biodiversity and cultural heritage through their sustainable and equitable use.

Contribute to the development of the Siwa region as a leading ecotourism site, by engaging local communities, the private sector and other key stakeholders, including non governmental organizations in the development of non-intrusive eco-tourism facilities and services.

Strengthen the mandate and institutional capacity of the Egyptian Environmental Affairs Agency (EEAA) to develop and enforce environmental policy in the Siwa region.

Revive the cultural heritage and promote a sustainable use of natural resources, through rehabilitating traditional houses, fostering ecotourism activities and improving the handicraft tradition in order to produce items for the local market and to evaluate the possibility to address the products to a more large market as the Egyptian or international one.

Through this project and through the promotion of other projects and investments, Siwa oasis will eventually become an important tourist attraction, included in the tours scheduled by major companies and visited by tourists from all over the world.. But more importantly its unique character, natural beauty, customs and traditions must not be threatened.

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INCOMING AND REPEATER: THE LONG "STAYER" FOR CONTEMPORARY "GRAND TOUR" - LOCAL TOURIST SYSTEMS OF CAMPANIA REGION

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Abstract

In new economic conception of development and growth, tourism engaged a crucial role and function. That happens non only in Western countries; not limited to the cash flow that it moves, but – and perhaps mainly – thanks to the cultural movement and osmosis that it causes.

Nevertheless, there are two moments of stress in the relation (that is certainly a clash) between the presence of tourists and the ordinary life of the visited societies. The first aspect concerns with the cost-benefit balance, and it is connected with the additional effort that the host country has to make for services, adjustments, shadows-costs, and so on. The second risk lies in strong approval components, that involves (and somehow drags) in a tourism no longer in balance between elite stages (the "traveller") and the presence of organized masses (the "tripper"), but ever more strongly directed in this direction.

In the paper will be proposed a model of tourism development, structural and organizational, that aims to overcome this situation, in respect in particular for Campania region.

Campania region represents an interesting testing field because it is characterized by singular systems landscape-environmental systems, and relative local communities, very different among them, for a set of condition of material, social and spiritual life elaborated throughout history (that makes their own "civilization"). Sannio and Irpinia, Cilento, Alto Casertano and the ground of Flegrei with volcanic system, represent the examples of plurality and diversity of Campania region.

Naples and surroundings always represent the main attractive location of Grand Tour of foreign travellers towards Mediterranean destinations. Naples is still nowadays the centre of the entire basin and it is candidate for becoming the euromediterranean capital. But this strength is, at the same time, a weak point for territorial system and regional urban framework.

The arranging model we propose, looks at the rebalancing of the forces in these territories, through the reorganization of the historical urban centres and the realization of a new mobility based on an integrated transport system, with the re-use of the so-called railway-"dry branches" used in the past and that can be used now to help the relations between local communities and travellers. All that can happen with the public-private cooperation.

Only in this way we can have the Integrated Relational Tourism finalized to the Grand Tour; to determine the symbiosis for the development and social integration between everyone who travels for knowledge and who waits to receive what need to improve his knowledge and sensibility, pointing on common values: forgiveness, non-violence, respect for the other, sharing and non-discrimination.

Key words: Naples, Euromediterranean capital, integrated tourism.

INTRODUCTION

European and western culture finds its root in the set of ideas, values, rules, concepts of balance and beauty belonging to ancient Greece and imperial Rome. Cities founded by settlers coming from Asia and Rome, all of places called *Magna Grecia*, with Roma, made up the urban framework (more than the economic support) around that developed and became established the interest of many intellectuals, artists, writers belonging to the world culture.

Grand Tour is a long journey of forming and intellectual improving done by many of the whole European rich aristocracy's off-spring on the ancient tracks, from the second half of 17th century on.

In 18th century the favourite route was our peninsula (Italian voyage). What grand tourists "nurse" was the Italian myth, the myth of an open-air museum, with an exorbitant quantity of works of art, the mild and bright climate, an exception for continental people coming from leaden sky, the exceptional cultural production in almost all fields, potent calls.

Already in 17th century, Rome and Venice started to exert a powerful attraction and were destined to improve their luck during the time. In third position, and with a big gap from them, there was Naples (and with Naples also Florence).

In the 18th Naples (and neighbouring countries) stood out among the most attractive places. The city, become the Enlightenment European culture capital, goes to the second place, immediately after Rome. During 1740s, new archaeological discoveries in Ercolano e Pompei (1738-1748) determine new coordinates for Italian itinerary.

The flow toward archaeological sites places grows up and becomes consolidated during Romanticism, when the South fascination becomes a sort of magnet. In the same time the journey, seen as a personal knowledge need, is transformed in a romantic demand. First English than German people follow this idea, pushed by the need of going away from the cold origin culture, as Thomas Mann wrote in Naples in 1890. They, coming back to their countries, bring in their mental background the experiences had by the visited countries.

But, both the first phenomenon, fasten to the Enlightenment culture success, and the second, about the statement of pre-romantic and romantic sensibility, are characterized by an elitist connotation and limited to few people.



Ravello – Amalfi's coast



Scala – Amalfi's coast

Mediterranean basin and the microclimate exalted the value of the environment and landscape and were aspects that encourage the travellers stay. The duration of Grand Tour was long, often months and years, and allow, further on enjoying the charm and the beauty of visited places, the deep knowledge of local communities, usages and costumes of people that, at the same time, learn by the "foreign contact".

In Campania, the preferred places for long stays where the Amalfi coast, “there where lemons blossom”, Goethe wrote. Amalfi, Ravello e Scala are the most visited places. The charm of Amalfi, Ravello, Scala e the whole Amalfi coast last during the time, although thanks to several typologies.

With the growing of capitalism, the adventure, the journey becomes less personal and follows the information furnished by “guides” and travel agency that decide the destinations according to economic and not cultural standards. The package tour arises, directed to a public more and more wide and standardized. The journey philosophy changes, the most intimate meaning of travelling changes.

The globalization of human being moves the interest in journey to make it functional to the pastime and free time, certainly not to the experiences and knowledge. The knowledge of visited places, almost always those ones more advertised, is a pure memory. The traveller, now better calling him tourist, doesn’t understand anything about the local cultural heritage, not material neither spiritual, doesn’t preserve of the meeting between cultures and usages except for a photography, the same image published on travel agencies catalogues. Luckily, for some time, things are changing: the tourist is searching other values. He feels more and more the need of human relations – different from those he usually entertains where he lives and works – and prefers always more non-common destinations. The Campania didn’t have nothing to do with there phenomena. But here the Grand Tour didn’t interest the “inland areas”. Apart from the exceptions about the archaeological sites known all over the world (Ercolano, Pompei, Paestum), the Grand Tour always interested the coast belt.



Ercolano

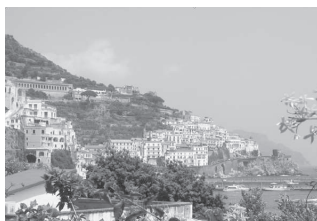


Pompei



Paestum

Even nowadays there is the same phenomenon. Apart from Caserta, or better the Palace and the Park, the tourist never goes to Campania inland, in spite of the presence of many historical centres, so-called “smaller historical towns” – immersed in a natural and anthropic landscape, often unexplored – that had a decisive role non only in historical aspect, but also for economical-spatial structure of the region. And, although technological innovation and transportation means has made new possible excursions regarding to the past, that can’t be possible in a extra-urban context.



Amalfi – the “capital” of Amalfi’s coast



Atrani Amalfi’s complementary town

THEORETICAL AND METHODOLOGICAL APPROACH

The Relational Integrated Tourism in Campania, nowadays, is particularly important. A tourism that rehabilitate the sense of the Grand Tour in a modern and post-modern way, as an experience more general and wider than the past with unexplored routes. A Grand Tour able to give a contribute to the cultural regional growing, based on the internationalization of knowledge, to build a relation system for exchange of knowledge in the whole regional sphere.

Ancient medieval villages, particularly, represent the opportunity for to put up the urban regional frame work and his connections system (that is non-existent nowadays), tended to the structuring relations between costal areas and Sanniti, Irpini, Cilentani and Apennines landscapes. The urban framework should restore and revitalize the old economic base of inland areas implanted on the primary sector and that can become a new badminton for development, involving that in the duplex function of handling and exchanging of flux, between north and south of Italy, towards Mediterranean; and between east and west, towards Balkans.

This urban framework, that includes Sanniti, Longobardi (Irpini) and so on, historical centres, in a new communicative texture among them and with Naples, in the way to connect them to the belonging region (Campania) to the "rest of the world", will allow the development of new types of tourism, hinged on not the simple exploration, but on the knowledge of local communities, on the re-discovery of their identities, their values system.

We can't forget, however, that native communities have different environmental, cultural and social connotations on the basis of their origins and cultural-historical stratification in the during centuries. These characteristics are disappearing because of the globalization process, while it should be preserve and respect in their singularity.

Once between city and country existed a sort of balance, every chief town took richness and sustenance from the countries. In the territory, in fact, a productive nature, that gave the best fruits in the world, was conjugated with a community that translated that wellness in artistic works and in the development of human science. When economic structures and social behaviour has changed, the regional bond model altered with a double effect. On the one hand, the birth of a big urban area in which the city has extended tentacles on the neighbouring centres, changing them in metropolis (effect of the city spread). On the other hand, impoverishment of smaller historical centres with the reduction of the number of inhabitants and the urban values (effects of periphery).

Naples always represent the principal arrival point of Grand Tour travellers towards Mediterranean destinations. The city is still the barycentre of the whole basin and it's proposed to become the "Euro-Mediterranean" capital city. This strength point, however, is at the same time a fragility factor for territorial system. Once, in the Mediterranean basin the temperature and the mutability of seasonal aspects exalted the environmental values, but above all were favourable aspects for the lifestyle and for the stay of the traveller too. As the Grand Tour and travellers stay were long in the south of Italy and in the Mediterranean basin, this allows to the travellers the contact and the knowledge of local communities, more than the beginning charm of the landscape. The traveller has the real chance to live and understand local usages.

The 20th century is the turning point in the most intimate meaning of travelling, that passes from a sort of cultural need to an other one connected to the free time. The homologation and the globalization of the usage of human being on the planet changed the interest for the voyage, making that functional to the amusement, but not to the know. Knowledge of visited sites is an epidemic one. The traveller understands nothing of local cultural heritage, material and spiritual, preserves nothing of the meeting with other culture except for a photo, a spin slide of an image already seen on the catalogues of travel agents.

Talking about Campania, as we have just said, the Grand Tour didn't touch inland areas. Nowadays this phenomenon is getting worse, for a series of motivations, first of all the absence of real connective and transport system. The absence of this system and the little knowledge of the social and artistic events represents a big handicap for the exploration.

According to that said, today the consideration on the integrated tourism is important for rehabilitate the Grand Tour value, inclined to the cultural growing of cities, based on the internationalization of knowledge.

This reflection should bring us to the building (re-construction) exchange and mobility network, not yet for an approval of people, but for knowledge and understanding exchange.

A Integrated relational tourist's Net in the specific case of the Campania, with the emblematic presence of *Magna Grecia* cities before, and of roman empire then and of medieval villages that – with rural cities and sacred sites - provide an opportunity of a human framework tended to the re-organization of the relationships between coastal areas and Sanniti, Irpini, Cilentani landscapes, propose itself as the fundamental instrumentation for a cot between the parts and for their fruition.

We have to interest the inner areas, in the duplex function of movement of people and cultures, in the flux from Naples to north and south, towards Mediterranean, and to east and west, towards Balkans. Spatial and functional re-organization with the recovery of the whole regional frame work, above all for the overload of functions that the city is forced to practice and that fails to perform, except at great effort, because of the high density area and the very low mobility capacities offered.

Regarding to the tourism and the relational demand, seems appropriate to invent a Grand Tour that has in mind two goals. On one hand, raising culturally and socially both "visitor" and "visited": in this case deeply penetrating all classes and the poorest areas of the region. On the other hand, making local administrators and the community forced to heal the land, looking at a town-planning scenically elevated.

It seems important to say emphatically that, compared to the problem present in Campania, it should provide to the re-organization and to the structuring of space so as having cities well-working for all citizens, to solve all everyday problems: the food supply, the right to housing, to transporting, to water supply, to waste, to new urban culture aspects, and so on. We should aim to quality of urban transformations and to proposals able to enhance local features, through consideration and analysis of factors as infrastructure and equipment, the relationship with the old and the re-valuing of the resources. Because metropolitan size has become a widespread reality, the challenge is not suffering the negative effects (the air and noise pollution, the chaotic traffic, the lack of parking, of public facilities and community services, waste of economic resources, progressive reduction in pedestrian, cycling, green areas, etc.), but governing in a logic of sustainable development, thinking in answer to people needs, being conscious that the territory is not a non-end gift, thinking that citizens needs today not essential necessities as the house and basic services, but they have new priority like the life, ambiental and urban areas quality. We have to focus on these priorities and direct the project towards the future development of modern cities.

It becomes urgent projecting a reference grid for the cities, where the territorial infrastructure and the allocations of new services become the factors we have to pursue and we have to draw the development of serial urban fabric (residences, productive and touristic activities) and not vice versa. As it's evident how strategic are the policies on renewable energy sources, applied to transport and urban mobility, as well as for the house.

We have to consider that the new "picture" of Campania have to be a project concerning of new cities relationated to the environmental sustainability and to the human impact: it has to be a project of integration between Nature and Architecture, reflecting about spatial density, application and destination of use, accessibility and mobility, equipment and services. With the distribution of population and productive activities, of equipment and services in function of capacity of the acceptance of the territory and easing of weights in Naples and its metropolitan area.

The prospect of working has to be the application of the alternative settlement model and the design of new urban identity for the environmental sustainability, the exploitation of natural resources and the preservation of historical heritage.

We must say no to the isolated actions, no to the fragmented magma in the city's urban coastal metropolis.

Ultimately we need to:

1. reconstruct the Campania historic aspects,
2. realize the integrated transport system for valuing the mobility to get stronger the connections between inner areas
3. make productive capacity resurface (we have a land so rich in eno gastronomic products, we have a historical variety of our monuments beauty, and we can't preserve them if we don't maintain the productive capacity).

The territorial model is maybe the only one able to consent the re-balance of the strengths between coastline, too full and now devoid of living space, and the inner side with very low density, characterized by functional senility. It's a "new" urban regional framework, with the re-organization of minor historical centres, reconstructing in a functional-structural grating, in relation with the environmental sustainability and the realization of a different mobility based on an integrated transport system.

This model is certainly able to have the relational to take root of tourism finalized to the realization of the contemporary Grand Tour; determining the symbiosis required for the development and the social integration between the ones who travel and the ones who wait to receive what they need to hone their skills and their sensibility, pointing on common values: forgiveness, non-violence, respect, sharing and non-discrimination.

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Enviroment and Agriculture

IMPROVING PRODUCTIVITY AND QUALITY OF STRAWBERRY VIA ORGANIC FERTILIZATION AND APPLICATION OF SOME NATURAL GROWTH STIMULANTS

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Abstract

Two field experiments were conducted at the research farm of faculty of Agriculture, Moshtohor, Egypt. During the seasons of 2005/2006 and 2006/2007, to elucidate the effect of replacement of mineral nitrogen fertilizer at the recommended dose (200kg N/fed.) by using organic fertilizer in the form of compost at 100%, 75%, 50% or 25% of the recommended nitrogen dose and spraying the plants with plant guard, garlic extract and salicylic acid solution at 3 mill, 10% and 5 m M/l respectively, after 75 days from transplanting and every two weeks intervals along the growing season on vegetative growth, yield and its component , as well as fruit quality of strawberry (*F.xananassa Duch*) cv. camarosa. Results indicated that, application of nitrogen fertilizer at the recommended dose (200kg N/ fed) in the form of 50% compost and 50% as mineral nitrogen reflected the highest values of vegetative growth parameters (plant height, number of leaves and crown/plant as well as fresh and dry weight/plant), chemical constituents of plant foliage (photosynthetic pigments, N.P. and K content), marketable and total produced yield, physical and chemical fruit quality (fruit length, diameter, weight, T.S.S, vit C, total sugars, total acidity and anthocyanine content). spraying the plants with different tested natural growth stimulants positively increased all measured growth parameters, yield and fruit quality. In this respect, salicylic acid at 5 m M/l was the best treatment. Using nitrogen fertilizer 50% N as compost and 50% N as mineral fertilizer combined with spraying plants with 5 mM/L salicylic acid at 75 days from transplanting and every 15 days intervals along the growing season was the most effective treatment in this respect. Storability Of fruits was also studied.

Key word: Strawberry – Organic, Mineral fertilization Salicylic acid Garlic extract – Plant guard

INTRODUCTION

Strawberry is one of the most important vegetable crops in Egypt for its fresh consumption, processing and exportation. Its total area was increased and reached about 5880 feddan (fed.) for frigo production with an average yield of 15t/ fed., and about 4196 fed for fresh production with an average yield of 22t/ fed. according to the statistics of Ministry of Agriculture in 2007/2008 season. Its production and quality depends on the presence of adequate levels of NPK in the soil. Such plant is sensitive to nutritional balance (**Albregts and Howard, 1985**) due to its shallow roots, high productivity and its long season. The response of strawberry to NPK nutrition is still a matter of question due to variations in climate, soil and cultural practices (**John et al., 1976**). The positive relationship between fertilizers and fruit yield and its quality was stated (**Abo El_Hamd et al,2006**).

Nitrogen fertilizers play a great role in strawberry production. **Pinamonti et al. 1997** pointed out the important role of compost as soil amendment, improving plant nutrition and enhancing plant growth. **Wang and Lin ,2002** reported the better effect of using combinations from mineral and organic fertilizers together than if each was used alone. The rate of nitrogen application/fed. for strawberry production differed between the different studies according to the source of nitrogen fertilizer, organic or mineral (**Mohamed and El-Miniawy, 2001, Arancon et al. 2003, Arancon et al. 2004, El-Sayed, 2004 and Gital et al.2005**)

The natural anti-disease substances began to flourish as it is safe for vegetable consumers. Moreover, it reduces plant diseases and pollution beside its positive effect on vegetative growth, yield and fruit quality. The positive response of such materials was indicated (**Saber 2003, El-fouly 2004, Zavala et al. 2004, Jayakumar et al. 2006 and Babalar, et al. 2007**) all working on salicylic acid; **Shafashak et al. 2004** working on garlic extract; **El-Shafie, 2003 and Porras et al. 2007**, working on plant guard). The present study aimed to investigate the effect of applying organic and mineral-N fertilization alone or in combination along with salicylic acid, plant guard or garlic extract sprays on strawberry plant growth, fruit yield and quality

Materials and Methods

Two field experiments were carried out during the two successive seasons of 2005/2006 and 2006/2007 at the farm of Faculty of Agriculture, Moshtohor, Benha University. Effects of organic or mineral fertilization levels without or with natural antidisease substances on strawberry growth, chemical composition, yield and fruit quality were studied.

In this respect, Camarosa strawberry cv. (*Fragaria X ananassa* Duch) was used. Frigo Transplants of the used cultivar were obtained from Strawberry and Non-Traditional Crops Improvement Center, Ain Shams University. Transplants were planted at 25cm apart on one side of ridge, 70 cm in width. The experimental plot consisted of 4 rows each 4m long and 0.7 m wide with an area of about 11.2m², a guard ridge was left between each adjacent plots. Transplanting was done on September 10th during both seasons of the study.

The soil of the experimental farm was clay loam in texture with pH 7.9. Soil mechanical and chemical analyses are shown in Table (1).

Table (1): Soil mechanical and chemical analyses of the used soil

Physical analysis		Chemical analysis			
		Cations meq/l		Anions meq/l	
Coarse sand	8.25%	Ca ⁺⁺	9.65	CO ₃ ⁻	Zero
Fine sand	16.15%	Mg ⁺⁺	3.16	HCO ₃ ⁻	5.38
Silt	24.60%	Na ⁺	6.53	Cl ⁻	5.93
Clay	51%	K ⁺	1.16	SO ₄ ⁻	9.19
Texture class clay loam					
Soil pH	7.9	Available N		22.5 mg/kg	
E.C, dS/m	2.16	Available P		9.1 mg/kg	
Organic matter	3.1%	Available K		120 mg/kg	

Each experiment included 20 treatments resulted from the combinations of five Nitrogen fertilizer treatments and four spray treatments as follows.

A. Nitrogen fertilizer treatments:

1. 100% compost- N (organic fertilizer).
2. 75% compost –N + 25% mineral-N fertilizers
3. 50% compost –N + 50% mineral-N fertilizers
4. 25% compost –N + 75% mineral-N fertilizers
5. 100% mineral N fertilizer in the form of ammonium sulfate [(NH₄)₂SO₄, 20.5%] was used. Nitrogen sources were used at a rate of 200 kg Nitrogen/fed as recommended by Ministry of Agriculture.

B. Natural antidisease substance :

Three foliar spray treatments in addition to the control treatment were tested as indicated below .

1. Plant guard (*Trichoderma harzianum*, 3×10^9 /g) product of El-Nasr Fertilizer & Biocides Co., dose 3ml/l.
2. Garlic extract, 10%.
3. Salicylic acid, 5mM/l
4. Control (sprayed only with distilled water).

In this experiment, a spilt- plot design with four replicates was adopted where nitrogen fertilizer treatments were randomly distributed in the main plots, while the natural antidisease substances were randomly distributed in the sub-plots.

The amounts of organic nitrogen fertilizer (compost) were divided into four equal parts. The first one was added at soil preparation, the second one was added three weeks after transplanting, the third one was added after two months from transplanting and the last one was added after three months from transplanting. The other quantities of inorganic-N fertilizer (the mineral fertilizer)were divided into three equal portions and were added at the same time of organic fertilizer after three weeks from transplanting, two months from transplanting and three month from transplanting. The other regular fertilizers were 300kg calcium super phosphate (16% P_2O_5) and 300kg potassium sulphate (48% K_2O) per fed. Fifty percent of calcium super sulphate was added at land preparation. The rest was added in equal portions before flowering and after the first harvesting. The chemical analysis of the used compost in first and second seasons is shown in Table (2).

Table (2): Analysis of compost in the two season.

Items	First season	Second season
N%	1.12	1.35
P%	0.82	0.91
K%	0.97	1.1
C:N ratio	21 : 1	18 : 1
Organic matter	31.68	34.58
PH	6.9	6.7
EC (ds/m)	5.4	5.1
1m ³ =	390 kg	381 kg

The spray treatments were started after 75 days from transplanting and every 15 days intervals (from December to the end of April).

All other Agricultural practices required for strawberry production were carried out according to the recommendations of the Ministry of Agriculture.

Data recorded:

1. Vegetative growth characteristics.

At blooming stage (on Feb. 5th in the two seasons) four plants were taken as representative sample from each experimental plot Plant height, number of leaves and fresh and dry weight per plant as well as leaf area and crowns number/plant were calculated.

2. Chemical composition in plant foliage:

- a. Photosynthetic pigments: The chlorophyll a, b and carotenoids in the recently expanded leaves were determined calorimetrically as described in **A. O. A. C. (1990)**.

- b. Total nitrogen, phosphorus and potassium content were determined in the digested dry matter of plant leaves according to methods described by **Pregl (1945)**, **John (1970)** and **Brown and Lilleland (1946)**.for nitrogen phosphorus and potassium, respectively

3. Fruit yield and its components:

- a. Early fruit yield (t/fed) : It was determined as weight of all harvested fruits at the ripe stage during February and March.
b. Total fruit yield (t/fed): It was calculated using plot yield and plot area.
c. Fruit yield (g/ plant): It was calculated form fruit yield/plot and number of plants/plot.
d. Marketable yield (t/fed).
e. Disease assessments: were determined as :

Percentage of infection: It was calculated according to the following formula:

Percentage of infection =	Weight of infected fruits	× 100
	Total weight of fruit yield	

4. Fruit quality :

1. Physical quality: A random sample of 10 fruits at full ripe stage from each experimental plot was taken and fruit length, diameter and weight were measured.

2. Chemical quality :

- a. **Total soluble solids (T.S.S.):**

A random sample of 10 fruits from each experimental plot at full ripe stage was taken to determine the percentage of soluble solid content (T.S.S) ,total titratable acidity (T.T.A), Ascorbic acid (Vitamin C) and anthocyanin pigment were determined as described by **A. O. A.C. (1990)** while Total sugars Reducing and total sugars were determined in fresh sample of ripe fruit for each with picric acid using spectrophotometer as described by **Thomas and Dutcher (1924)**.

All obtained data were statistically analyzed according to Snedecor and Cochran .1991

RESULT AND DISCUSSION

1.Effect of nitrogen fertilizer ,natural antidisease substances and their interaction on vegetative growth.

1.1. Effect of nitrogen Fertilization:

Data in Table 3 indicate that the presence of mineral-N fertilizer alone or along with compost had better response on vegetative growth compared with 100%compost alone. Moreover, it seems that the best application level was with 50%compost-N+50%mineral-N level followed by the other combinations. Obtained results are near similar in both seasons of growth. Accordingly, using half of recommended dose of nitrogen in the form of compost and other half of nitrogen as mineral fertilizer was the most effective treatment on plant growth. However, such increments fall to reach the level of 0.05 significance in the case of plant height and number of crowns/plant during both seasons.

The increase in plant growth due to supplementation of mineral nitrogen with organic nitrogen may be attributed to that organic fertilizers release nitrogen slowly during the growing season, while mineral fertilizer can compensate the needed N. besides, organic fertilizer play an important role in improving soil physical properties and reducing PH value which affect availability of soil nutrients for uptaking by plant and consequently increased plant growth. Also, the increase in plant growth parameters were connected with the increase in photosynthetic pigments and determined macro-nutrient content (Table 4) and inturn increased plant growth. Obtained results are in same direction with those reported by Arancon et al (2003

and 2004), El Araby et al (2003) Ezzo (2004) and Nam et al (2006) on strawberry however Glessiman et al (1996) and Neri et al (2002) on strawberry indicated that plant vegetative growth measurements were less in organic production system than in conventional system in a comparison.

Table (3): Effect of nitrogen fertilizer ,natural antidiseases substances and their interaction on strawberry vegetative growth characteristics during the two seasons of study.

Treatments	2005/2006						2006/2007						
	Plant height (cm)	Number of Leaves	Number of crowns	Fresh weight (g)	Dry weight(g)	Leaf area (cm2)	Plant height (cm)	Number of Leaves	Number of crowns	Fresh weight (g)	Dry weight(g)	Leaf area (cm2)	
	N fertilizers												
100% compost- N	15.06	17.53	4.17	30.29	9.85	213.99	21.00	21.43	5.37	47.81	11.86	234.41	
75 % compost- N+ 25% mineral- N	15.84	20.12	4.29	34.65	10.76	247.36	20.37	20.43	5.75	47.44	12.75	261.10	
50 % compost- N+ 50% mineral- N	16.10	20.10	4.89	38.55	11.94	268.58	20.37	22.25	6.00	54.31	14.10	272.30	
25 % compost- N+ 75% mineral- N	16.20	20.05	4.39	35.83	11.34	264.61	20.56	22.00	5.62	48.39	13.50	265.21	
100% mineral- N fertilizer	16.00	18.12	4.26	31.12	10.52	232.67	20.31	20.50	5.31	49.79	12.44	249.12	
L.S.D. at 0.05	N.S	2.13	N.S	5.36	1.92	49.2	N.S	N.S	N.S	5.93	1.08	27.2	
Natural antidiseases substance													
Control	15.16	17.47	4.02	30.19	10.02	223.61	19.52	18.84	5.15	44.35	11.14	242.74	
Garlic extract	15.82	18.55	4.26	33.83	10.55	238.98	20.60	20.10	5.10	49.11	13.0	259.08	
Plant guard	16.06	19.53	4.38	34.82	10.95	251.5	20.70	21.85	5.55	49.80	13.04	255.54	
Salicylic acid	16.32	21.19	5.02	37.52	12.00	267.69	21.27	24.50	5.85	54.81	14.13	268.39	
L.S.D. at 0.05	N.S	2.57	0.46	3.09	1.83	35.8	0.98	2.27	N.S	6.09	1.76	32.6	
Interactions													
100% compost- N	Control	14.59	15.87	3.81	26.80	183.64	20.00	19.24	5.50	42.40	9.00	218.77	
	Garlic extract	15.41	18.25	3.93	29.97	9.80	212.27	22.00	18.75	4.50	49.02	14.00	227.43
	Plant guard	15.00	16.75	4.31	30.52	10.40	225.03	20.75	23.75	6.00	49.35	12.10	237.45
	Salicylic acid	15.25	19.25	4.62	33.88	10.57	235.02	21.25	24.00	5.50	50.50	12.35	254.0
75 % compost- N+ 25% mineral- N	Control	15.37	18.00	3.93	34.48	10.60	237.45	19.25	18.50	5.50	39.00	11.60	248.98
	Garlic extract	16.06	18.87	4.12	33.93	10.30	239.87	20.25	19.50	5.50	46.67	12.00	264.58
	Plant guard	15.87	21.31	4.50	34.61	10.82	256.42	20.25	18.75	5.75	46.92	12.50	258.29
	Salicylic acid	16.06	22.31	4.62	35.57	11.32	255.66	21.75	25.00	6.25	57.16	14.90	272.55
50 % compost- N+ 50% mineral- N	Control	15.05	17.93	4.62	31.44	10.69	223.66	19.12	20.75	5.25	47.60	12.10	262.61
	Garlic extract	16.12	18.37	4.87	36.06	11.14	263.43	19.25	22.00	5.50	54.42	13.50	274.21
	Plant guard	16.62	21.56	4.81	43.04	12.27	275.45	21.00	20.50	6.75	56.85	15.20	267.71
	Salicylic acid	16.62	22.56	5.25	43.65	13.67	299.78	22.12	25.75	6.50	58.40	15.60	284.69
L.S.D. at 0.05	Control	15.37	18.43	3.93	28.90	9.77	227.43	19.25	17.50	5.00	45.90	11.1	246.73
	Garlic extract	16.06	19.43	4.31	38.45	12.15	278.24	20.75	19.75	5.98	46.66	13.2	272.99
	Plant guard	16.50	19.87	4.18	33.98	10.21	258.15	20.25	25.50	5.50	46.33	13.2	266.0
	Salicylic acid	16.87	22.50	5.16	42.02	13.23	294.59	22.00	25.25	6.00	54.06	14.30	275.27
L.S.D. at 0.05	Control	15.43	17.12	3.81	29.31	10.40	233.85	20.00	18.25	5.50	46.87	11.90	236.60
	Garlic extract	15.43	17.81	4.06	30.75	9.40	201.05	20.75	20.50	6.00	48.80	12.30	256.19
	Plant guard	16.31	18.18	4.12	31.95	11.07	242.44	21.25	20.75	4.75	49.57	12.20	248.23
	Salicylic acid	16.81	19.37	5.06	32.49	11.20	253.37	19.25	22.50	5.00	53.92	13.37	255.45
L.S.D. at 0.05	N.S	4.09	1.23	8.93	2.36	42.80	N.S	4.38	1.73	12.43	4.12	53.60	

1.2. Effect of natural antidisease substances:

As for the effect of natural antidisease substances on vegetative growth characteristics of strawberry plant expressed as plant height, number of leaves and crowns per plant, fresh and dry weight of plant as well as leaf area (Table 3). Obtained data show clearly that spraying strawberry plants with garlic extract, plant guard and salicylic acid at 10%, 3ml/l and 5mM/l respectively, starting 75 days after transplanting and every 2 weeks intervals, increased all the aforementioned growth parameters during the two seasons of study compared with the control treatment. However, such increase in growth parameter did not reach the level of significance in case of plant height during the first season and crowns number /plant during the second one. In this respect, the highest values in all measured traits were recorded in case of using salicylic acid, plant guard and garlic extract in descending order during the two seasons of study. The increase in growth due to the application of tested stimulants may be attributed to the role of such materials as antioxidants which contract the free radical (O_2) which affect the activity and viability of plant cells. Obtained results are in accordance with those reported by El-Shafie (2003), El-Fouly (2004), Babalar et al (2007) and Porras et al (2007) on strawberry

1.3. Effect of the interaction:

Concerning the effect of the interaction (Table 3) show that application of nitrogen fertilizer at the recommended dose (200kg N/fed.) half of the amount as organic form and the other half as mineral form combined with spraying plants by Salicylic acid at 5mM/l starting 75 day after transplanting and every 2 weeks intervals reflected the highest values in all studied growth parameters during the two seasons of study.

2. Chemical constituents of plant foliage:

2.1. Effect of nitrogen fertilization:

Data in Table (4) show clearly that supplementation of 25, 50, 75 or 100% from mineral nitrogen fertilizer along with organic fertilizer in the form of compost significantly increased photosynthetic pigments, i.e., chlorophyll a, b and carotenoids concentration and the percentage of total nitrogen compared to mineral-N fertilizer or compost when each was used alone. Phosphorus and potassium in plant foliage were the highest with compost application alone and led to decrease as the mineral-N increased up to 100%. In this regard, using half of recommended dose in the form of mineral nitrogen and the other half as organic nitrogen (compost) recorded the highest values in all measured photosynthetic pigments and nitrogen percentage during both seasons. However, using nitrogen fertilizer in the form of compost only at rate of 200KgN/fed (45.58m³/fed. in the first season and 38.8m³/fed in the second one) reflected the highest values in phosphorus and potassium concentration during the two seasons compared with all other tested treatments. Increasing in photosynthetic pigments content may be due to the main role of nitrogen fertilizer in the synthesis and as a constituent of chlorophyll molecule. Moreover, the increase in macro-nutrients (PK) may be attributed to the effect of organic fertilizer on reducing the PH value of the soil, increase the soil microbial biomass and humate which affect on the decomposition and availability of such nutrients which in turn increase its uptake by plant roots.

Obtained results are in accordance with those reported by Eissa (2002), El-Araby et al (2003) and El-Sayed (2004) in case of photosynthetic pigments and Mohamed and El-Miniawy (2001), Essia (2002), El-Araby et al (2003), Khalaf (2003), El-Sayed (2004) and Preusch et al (2004)

2.2. Effect of natural antidiseases substances:-

The effect of spraying natural antidiseases substances, i.e., garlic extract, plant guard and salicylic acid, on photosynthetic pigments (Chlorophyll a, b and carotenoids), total nitrogen, phosphorus and potassium percentage is presented in Table 4. Sprays significantly increased foliage chlorophyll (a & b) carotenoids, N%, P%, K% compared to the control. In this concerning, spraying the plants with salicylic acid at 5mM/l every 2 weeks intervals starting 75 days from transplanting recorded the highest increments in all assayed photosynthetic pigments and macronutrient content followed by plant guard and garlic extract. Obtained results are nearly similar during both seasons of growth.

Such increments in photosynthetic pigments and macro-nutrients may be due to the role of tested plant growth stimulants as antioxidants, its content of growth substances, its effect as antidiseases infection and consequently keeping plant health along with increasing the role of assimilation of photosynthetic pigments and absorption of macro-nutrients. Similar trends were also recorded by Shafshak et al. (2004) on squash, Mahgoob and Zaghlool (2002) and Fathy and Khedr (2005) on tomato.