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TYPES OF ENAMEL HYPOPLASIA  
AND OTHER PATHOLOGICAL CASES IN AN  
OSTEOARCHAEOLOGICAL SAMPLE IN HUNGARY  
(Preliminary report)

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This study presents different types of enamel hypoplasia (EH) and some serious pathological cases (osteotuberculosis, leprosy) in an osteoarchaeological sample, on the basis of morphological inspection. In a region of present-day eastern Hungary (the site is the Komádi village) thirty-eight skeletons were unearthed in 2008 and dated to the 10–11<sup>th</sup> century. The skeleton material is collected in the Déri Museum, Debrecen. In this series the different types of enamel hypoplasia as well as the other pathological alterations (particularly to infectious diseases) were recorded. Based on these conditions the general poor state of health of the community was supposed.

**Key words:** osteoarchaeological samples, eastern Hungary, enamel hypoplasia, osseous tuberculosis, leprosy.

### INTRODUCTION

Paleopathology is an important branch of physical anthropology that includes studies of disease processes in ancient human populations. Numerous diseases leave their mark on teeth and bones and thus provide the opportunity to learn something about the illnesses and health problems of the past populations. One category of dental lesions is enamel hypoplasia.

Enamel hypoplasia (EH) comprises deficiencies in enamel thickness that result from physiological disturbances during the matrix secretion stage of amelogenesis. They are identified as a circumferential line, band, or pitting and

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white spot as well, caused by a wide variety of agents, ranging from fever and starvation to infectious diseases. Anthropological research on enamel hypoplasia and other enamel developmental defects has been the most active in the study of ancient human remains (Goodman, 1988).

In addition to the investigation of the teeth, the study of the pathological bones is also important because it points to lifestyle, health status, environment of a community. A major category of pathological processes is the infectious diseases. The study of infectious diseases, including tuberculosis and leprosy, is emphasized, given their significance as selective factors in ancient populations.

The purpose of this study is two-fold: first to present different and serious types of the enamel hypoplasia and second to review cases of osseous leprosy and tuberculosis in the skeletal material unearthed in 2008, in a region of the present-day eastern Hungary.

#### ARCHAEOLOGICAL AND ANTHROPOLOGICAL BACKGROUND

Skeletons were unearthed in the eastern part of Hungary (at the Komádi village) by the archaeologist B. Kolozsi (Déri Museum, Debrecen) in 2008. The archeological finds were dated to the 10–11<sup>th</sup> century (Kolozsi, 2011). The skeletons are housed in the Déri Museum, Debrecen<sup>5</sup>. Thirty-eight skeletons unearthed in 2008 were suitable for anthropological and paleopathological investigation. The demographic profile of the series was determined based on the method by Acsádi-Nemeskéri (1970) as the following: 12 males, 13 females and 13 infants (Table 1). From a historic anthropological point of view it is significant that the so-called symbolic trephinations are present in two cases (grave no. 49–60, female, mature; grave no. 70–82 male, mature, Fig. 1). About 2.0x1–1.5 cm oval depressions are seen in the middle of the sagittal suture on the vertex. The surfaces are 3–4 mm deep and either smooth or slightly rough. The upper compact layer and in some cases the spongiosa parts were removed in a distinct spot of calvaria and there was no connection between the endocranial space and the exterior. Taxonomically, the mandibular tori and the shovel-shaped incisors are noted as they might have contributed to the Europoid–Mongolian/Mongolian characters, however, the majority of the skulls show the European types (three cases appear with the European–Mongolian types). The taxonomic groups were estimated after Lipták (1983).

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<sup>5</sup> This study is preliminary; the excavation was continued in 2010 resulting more archeological finds and skeletons (Kolozsi, 2011).

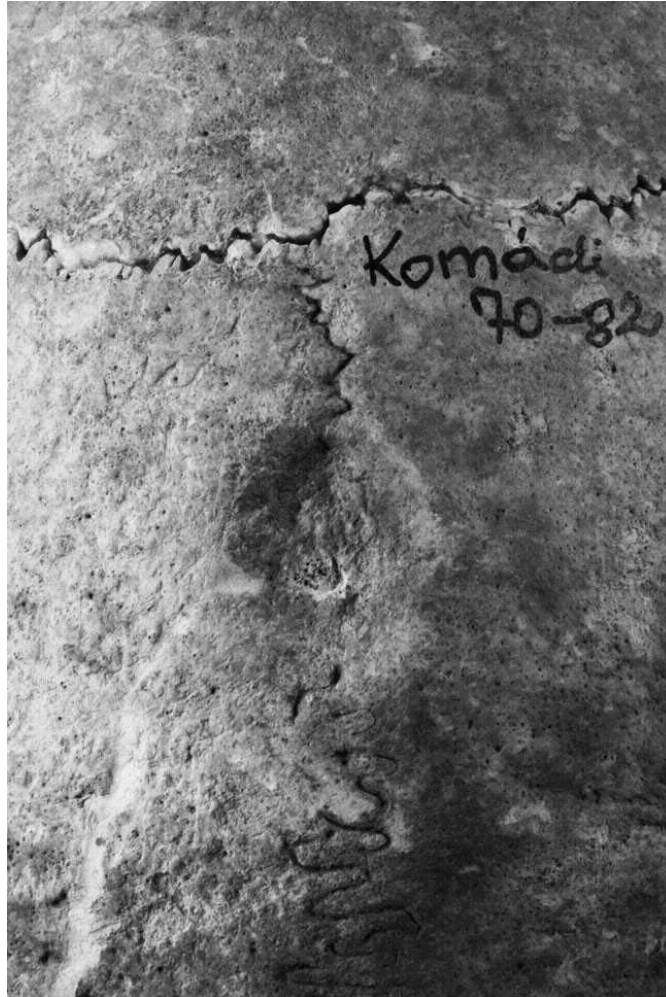


Fig. 1 – Symbolic trephination  
Komádi, grave no. 70–82, male, mature.

*Table 1*

Distribution of the age groups and sexes

Age at death	Ind	Males	Females	Total
Infant I (0–6)	10	–	–	10
Infant II (7–14)	3	–	–	3
Juvenile (15–22)	–	1	–	1
Adult (23–39)	–	2	3	5
Mature (40–59)	–	6	7	13
Senile (60–x)	–	3	3	6
<b>Total</b>	<b>13</b>	<b>12</b>	<b>13</b>	<b>38</b>

### INVESTIGATION OF THE TEETH

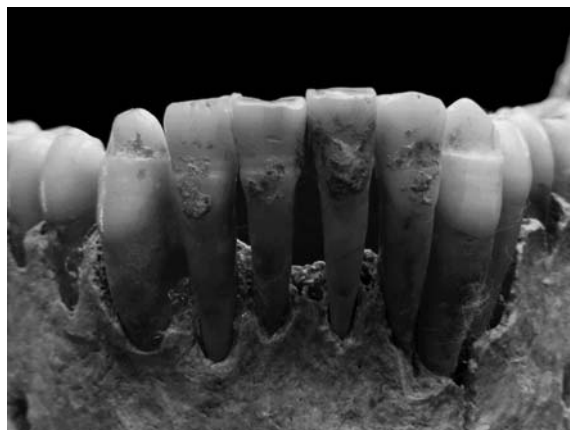
#### Enamel hypoplasia

In adults the majority of the teeth were suitable for the analysis of enamel hypoplasia (512 teeth of 768 theoretical tooth-number). This anomaly was showing low frequency, however, in three specimens its appearance is serious and uncommon.

#### Case reports

1. Grave no. 15–20, juvenile (17–19 years old) with skull and postcranial bones (third molars are not erupted);

The upper and lower incisors, canines and the first molars were affected with the pronounced horizontal groove, especially on the upper medial incisors (seen in the middle part of the crown) (Fig. 2) and on the canines, – located in the one-third of the crown (Fig. 3).



Figs. 2–3 – Linear type of enamel hypoplasia with remarkable horizontal groove (by infection or/and nutrition) Komádi, grave no. 15–20, juvenile.

2. Grave no. 101–114, female (30–35 years old) with skull and postcranial bones; The skull appears European–Mongolian type. The upper lateral incisors are showing shovel-shaped form. In the right lower first premolar and the right upper first-second premolars, and in the left first premolar caries profunda can be seen. The upper premolars are affected by enamel hypoplasia with pit formations on the buccal surface, and the upper lateral incisors and canines are also affected, but in these cases the enamel hypoplasias appear as linear forms. Pit forms of the enamel hypoplasia can be recorded on the right-left lower first premolars on the buccal surface (Figs.4–5).



Figs. 4-5 – Pit-type of enamel hypoplasia (by infection or/and nutrition)  
Komádi, grave no. 101–114, female, adult.

3. Grave no. 75–88, male (35–39 years old) with skull and postcranial bones;

The skull appears European with some Mongolian characters (the medial surfaces of the upper incisors have the shovel-shaped form). Linear hypoplasia is present on the upper medial incisors. On the medial surface of the lower right second molar a semicircular line can be observed (Fig. 6).

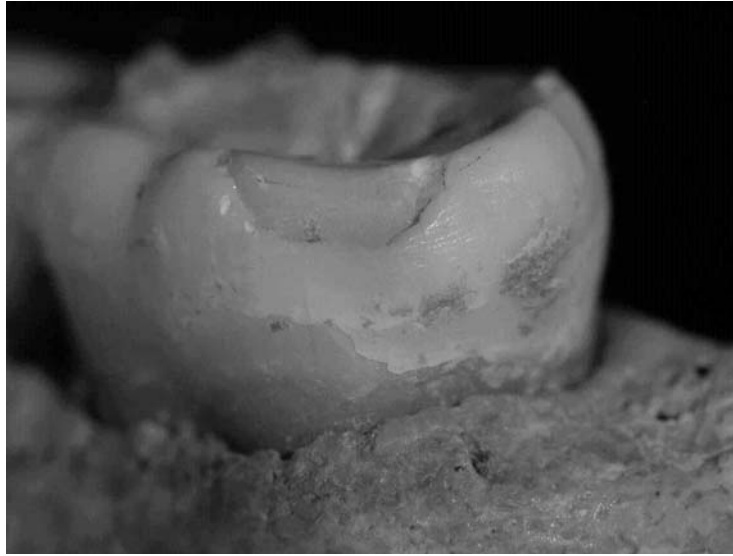


Fig. 6 – Semicircular line of enamel hypoplasia on lower molar (by trauma) Komádi, grave no. 75–88, male, adult.







Figs. 7–8 – Artificial intervention in the lower molar  
Komádi, grave no. 79–92, male, senile.

Different types of caries formations presented also low frequency. In one case (grave no. 79–92, male, 60–70 years old) artificial intervention is supposed in the lower right second molar (there is a large groove between the crown and the root (Figs. 7–8).

## INVESTIGATION OF THE BONES

### Infectious diseases

In spite of the small number of specimens for the investigation in this community, they exhibited evidence for serious infectious diseases such as leprosy and tuberculosis. In one specimen the pathological alterations point towards leprosy, while in other case leprosy is supposed.

#### Case reports

##### 1. Grave no. 96–109, male (50–59 years old)

Changes appear in the regions of the piriform aperture: the apex of the nasal bones, the nasal spine and the vomer are atrophied; the piriform aperture is larger and thicker laterally and the alveolar process is atrophied partially (Fig. 9). Periostitis occurs in the cavum nasale, and porous surface of the palatum durum is noted (Fig. 10), and periostitis and osteitis in the fibulas, tibiae and the toe-bones (it seems these alterations are caused by leprosy).

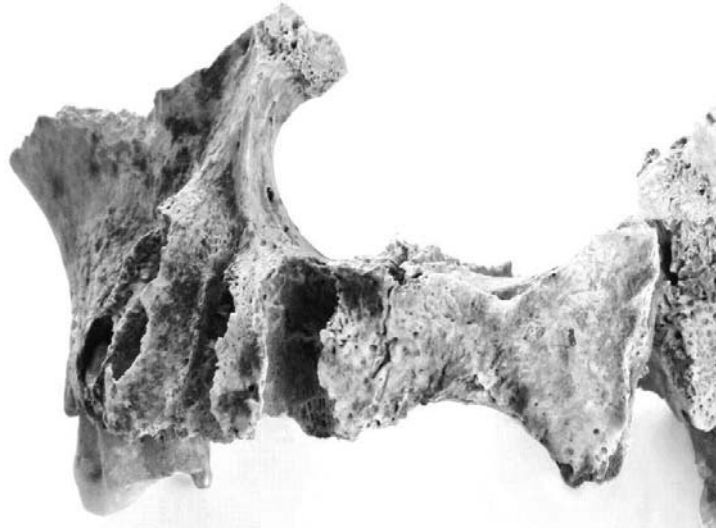


Fig. 9 – Rhinomaxillary remodeling, alveolar recession, rounded margins of the piriform aperture (by leprosy) Komádi, grave no. 96–109, male, mature.



Fig. 10 – Presence of porosity probably resulting from inflammation in the nasal cavity (by leprosy) Komádi, grave no. 96–109, male, mature.

2. Grave no. 89–102, male (40–45 years old)

The surface of the nasal bones is porous and atrophied, the piriform aperture is larger and thicker laterally and the nasal spine is atrophied (post-cranial bones are missing and fragmentary). The etiology of the leprosy is supposed.

3. Grave no. 90–103, male (40–45 years old)

There are lytic lesions on the medial surface of the sacrum (probable in response to an overlying abscess) (Fig. 11). The long bones especially the tibiae and fibulae have serious periostitis (Fig. 12). The medial surface of the ribs shows signs of pleurisy, further changes being seen on the clavicle, vertebrae and other bones. The changes might have been due to tuberculosis.

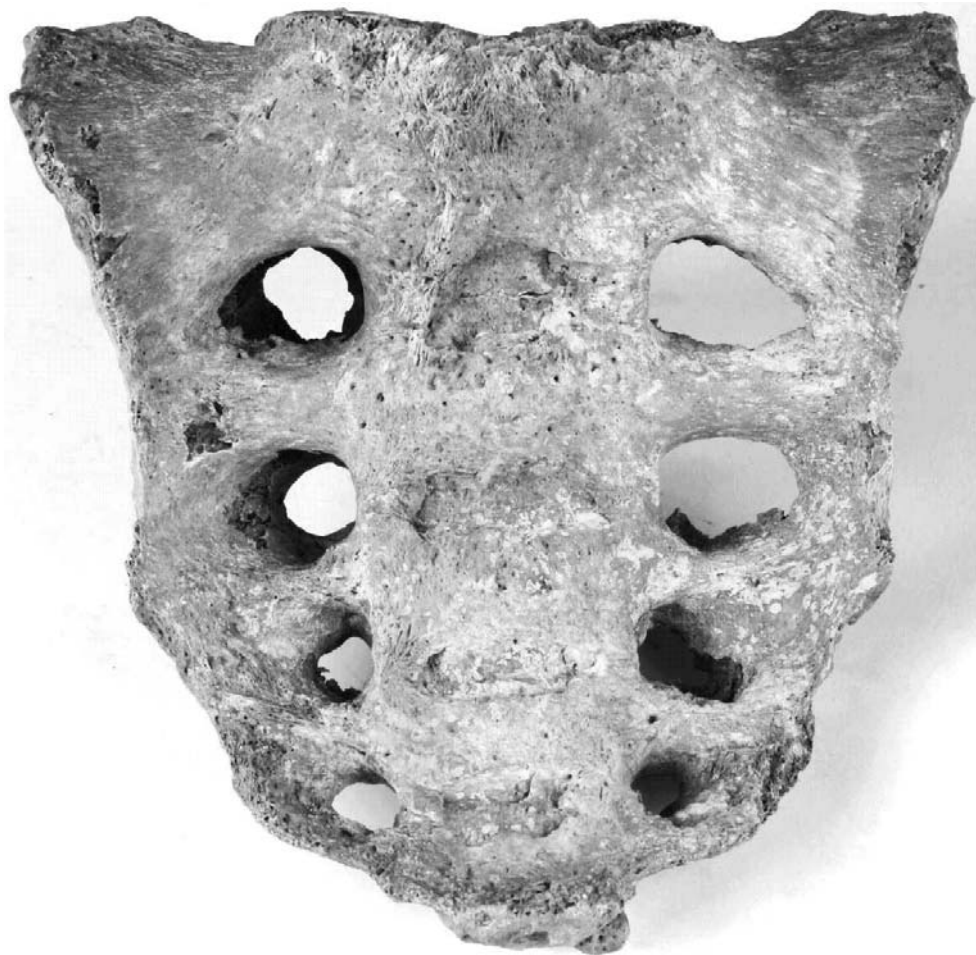


Fig. 11 – Lytic lesions on the medial surface of the sacrum (probable by spinal – lumbosacral – tuberculosis) Komádi, grave no. 90–103, male, mature.

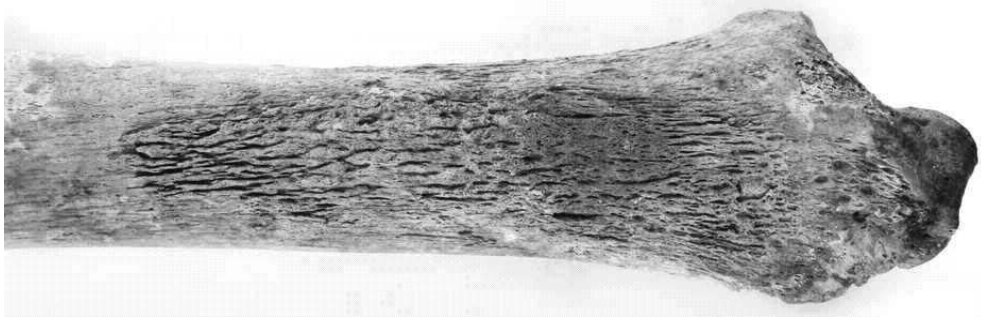


Fig. 12 – Periostitis on the fibula (probable tuberculosis) Komádi, grave no. 90–103, male, mature.

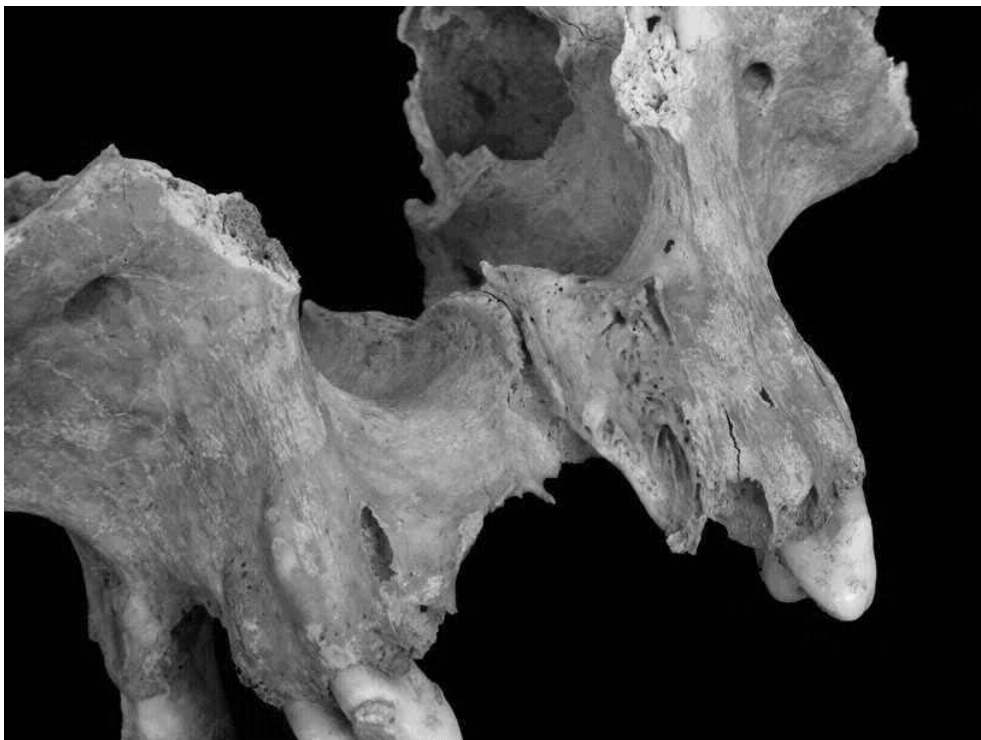


Fig. 13 – Alveolar resorption in the maxilla and remodeling of the edge of the aperture piriform (probable by leprosy) Berettyóújfalu-Herpály, grave no. 1, male, mature.

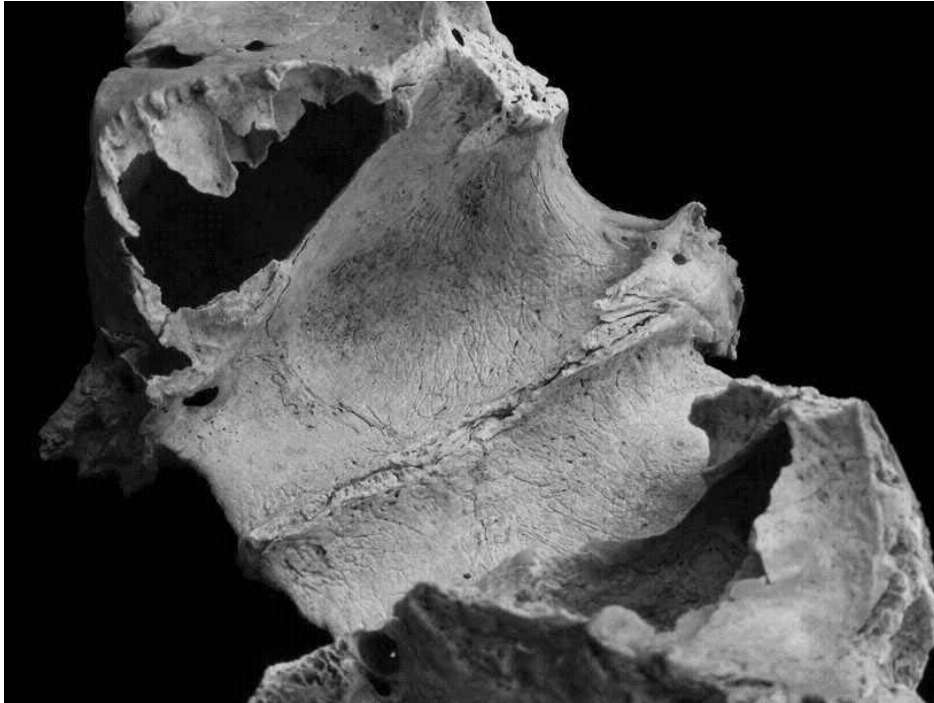


Fig. 14 – Porosity on the lower surface of the nasal cavity (probable by leprosy)  
Berettyóújfalu-Herpály, grave no. 1. male, mature.

Osseous tuberculosis is also supposed in more specimens, but the changes are atypical (based on endocranial lesions, periostitis on the ribs and long bones).

#### DISCUSSION AND CONCLUSIONS

Enamel hypoplasia belongs to structural anomalies (Schulze, 1970), of which many types are observed, the most frequent forms being of linear and pit type. They are frequently studied in ancient populations (Rose, 1977; Molnar-Molnar, 1985; Goodman, 1988; Kerr, 1989; Marcsik-Baglyas, 1987).

In our material the linear and pit forms of the enamel hypoplasia known as “stress”-hypoplasia (Goodman, 1988) occurred in the early childhood (Kerr, 1989) (grave no. 15–20 = 3–3.5 years; 101–114 = 1–2 years) and seemed to be the result of the same systematic disruption. In the case of grave no. 15–20 the hypoplasia is very evident with pronounced horizontal grooves; and in grave no. 101–114 with pit-form. This hypoplasia might have been associated with malnutrition and/or infectious pathological conditions.

In the case of grave no. 75–88 the enamel hypoplasia might have been caused by the effect of trauma.

An unusual form of hypoplasia is noted for grave no. 79–92. In a lower molar one part of the neck and the root is missing, and the surface is very sharp. It is possible this condition was formed by artificial intervention.

In the Komádi community in the 10–11<sup>th</sup> century the skeletal tuberculosis and the leprosy are neither unusual nor surprising. In many other studies skeletal tuberculosis cases were presented from the Eastern Hungary, 10–12<sup>th</sup> century (Marcsik, 2003; Marcsik *et al.*, 2006, 2007). Leprosy was also spread in this region but it was sporadic, similar to tuberculosis (Donoghue *et al.*, 2002, 2005, Csóri *et al.*, 2009). Near the Komádi site (Berettyóújfalu–Herpály) a new case of osseous leprosy was noted (Figs. 13–14), the skeleton material dating from the 9–12<sup>th</sup> century (Módy-Kozák, 1976)<sup>6</sup>. The anthropological and pathological analysis of the skeletons is currently in progress.

Based on the serious condition of enamel hypoplasia and infectious diseases in the studied skeletons, a general poor state of health of the community can be inferred.

In the Komádi series symbolic trephination was performed on two adult-skulls. Symbolic trephination was performed in Eastern (Southern-Eastern) Europe mostly during the 10–11<sup>th</sup> century (Boev 1968; Jordanov-Dimitrova, 1990; Fóthi *et al.*, 2001). The reasons for such practices are unknown, but they are attributed to ritual-medical, and religious causes.) In the Carpathian Basin, at the present-day Hungary the prevalence of symbolic trephination cases decreased through the 11<sup>th</sup> century, following the introduction of Christianity. Symbolic trephination was quite common among the early Hungarians (maybe as a “pagan rite”) (Bereczki-Marcsik, 2005), our cases therefore contributing to the study of the anthropological significance of such practices.

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## CHANGES OF TRANSVERSAL FORAMEN IN THREE CERVICAL VERTEBRAE FROM SKELETONS DATED IN MIDDLE AGES (BULGARIA)

VICTORIA RUSSEVA<sup>1</sup>

Three findings of cervical vertebrae from Bulgarian medieval necropolises (skeletons from grave N 16, Pliska, N 258 and N 273, “St. 40 Martyrs”, Veliko Tarnovo) show specific changes of the transversal foramen. One vertebra (grave N 16 Pliska) expresses the most pronounced case, with highly widened right transversal foramen, with irregular form and visible thickened bone, enclosing the foramen. The 6<sup>th</sup> cervical vertebra from grave N 258, “St. 40 Martyrs” similarly shows widened left transversal foramen, with the bone limiting the foramen appearing thinner than normal and the form preserving a more accurate round shape. The 7<sup>th</sup> cervical vertebra from grave N 273, “40 Martyrs”, Veliko Tarnovo, has a bipartite form of left transversal foramen, with the posterior opening totally closed by an accumulation of a porous bone formation, and the anterior opening intact. The three studied vertebrae show no aneurysmal erosion or signs of trauma. We suggest that the observed changes in transversal foramina are the results of circulatory disturbances of the vertebral artery.

**Key words:** Middle Ages, transversal vertebral foramen, circulatory disturbances.

Among the skeletal material from archaeological sites the vertebrae often appear highly fragmented and, in many cases, sections of the vertebral column are not fully represented and don't allow reconstruction. Meanwhile, characteristics of these bones can provide vast information about activity, health status and life conditions in past populations.

### MATERIAL AND METHODS

The investigated material comes from two sites, dated in the Middle Ages: one from Pliska, necropolis to the North Wall, 11<sup>th</sup> century AD (Георгиев и съавт. 2008, 2008, 2009), cervical vertebra of skeleton from grave N 16 and second, from the necropolis around the church “St. 40 Martyrs”, in Veliko Tarnovo, dated in the

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second half of the 13<sup>th</sup> – first half of 14<sup>th</sup> century AD (Тотев, Чокоев 1996, Тотев *et al.* 2001, 2002, 2003, Тотев, Дерменджиев 2004, 2005), cervical vertebra of skeleton from grave N 258 and of that from grave N 273. All three cervical vertebrae exhibit changes of the transversal foramen. In the anthropological examination, according to the presented material, sexing of individuals was achieved by methods described in Acsádi & Nemeskeri (1970) for assessment of features on pelvic and cranial bones, with priority of data from pelvic bones. Measurements comprising diameters of femoral, humeral and radial heads, bicondylar breadth of femoral and humeral bones and length of clavicle were also collected and the results were compared to tables of Pearson (1919) and Thieme (1957) (in: Bass 1971), Kühl (1985), and Alekseev (Алексеев 1966) for obtainment of additional information about the sex of individuals. The age of the individuals was assessed according to the methods for scoring the pubic bone symphyseal surface relief following Todd (in: Schwartz 1995) and cranial suture closure following Simpson-Olivier (in: Алексеев, Дебец 1964).

## RESULTS

From the three studied findings, the fragment of cervical vertebra from grave N 16, Pliska (Fig. 1) presents the most pronounced deviation from the normal form. The examination of the skeleton revealed fully preserved long bones of the upper limbs (only scapulae being fragmented) and right femur and left tibia from lower limbs. The left femur, right tibia and both fibulae were fragmented. The pelvic bones were also fragmented including a fragment of the right pubic bone and no fragments from the sacrum. The manubrium and the corpus of sternum were present, while the ribs – fragmented. The vertebral column was incomplete – from the cervical section there were fragments of five vertebrae, including fully preserved 1<sup>st</sup>–3<sup>rd</sup> vertebrae and from the thoracic section there were eight inconsecutive vertebrae in different stages of fragmentation. The skull was fragmented presenting parts from the frontal, both parietal, and occipital bones (the latter with parts from squamous and basal areas), from both temporal bones and from the maxilla. The mandible was fully preserved, as well as right zygomatic bone. The individual was identified as male, based on data from pelvic and cranial bones fragments, sexual identification being confirmed by the obtained measurements of limb bones. The age at death was estimated at about 35–40 years according to the relief of the symphyseal surface and the stage of the cranial suture closure. The dentition, most of which preserved, showed no pathological changes. Slight degenerative changes were observed on the acetabulum and the femoral head and on the proximal and distal articulation surfaces of the tibiae. The preserved fragments of vertebrae did not show degenerative changes. The cranial vault showed a cribrotic appearance, between both temporal lines on the frontal, on both parietal and on the squamous part of the occipital bones. From this individual was also found a fragment of a cervical vertebra (right half) showing a highly widened right transversal foramen, up to 28 mm,

with a clearly changed, irregular form (Fig. 1 a, b). The bone enclosing the foramen is visibly thickened. The vertebral column in the cervical section could not be reconstructed. As such, it was difficult to identify the exact vertebra of the found fragment (it appears to be one of 4<sup>th</sup>–7<sup>th</sup> vertebrae), and it was impossible to follow the exact condition of neighboring vertebrae. The other fragments from the cervical vertebrae of this skeleton did not show changes. The fragment of the vertebra discussed presented no other changes characteristic for signs of degenerative joint disease, like spondylosis/osteocondrosis or other bone reactions, characteristic for arthritis infections.

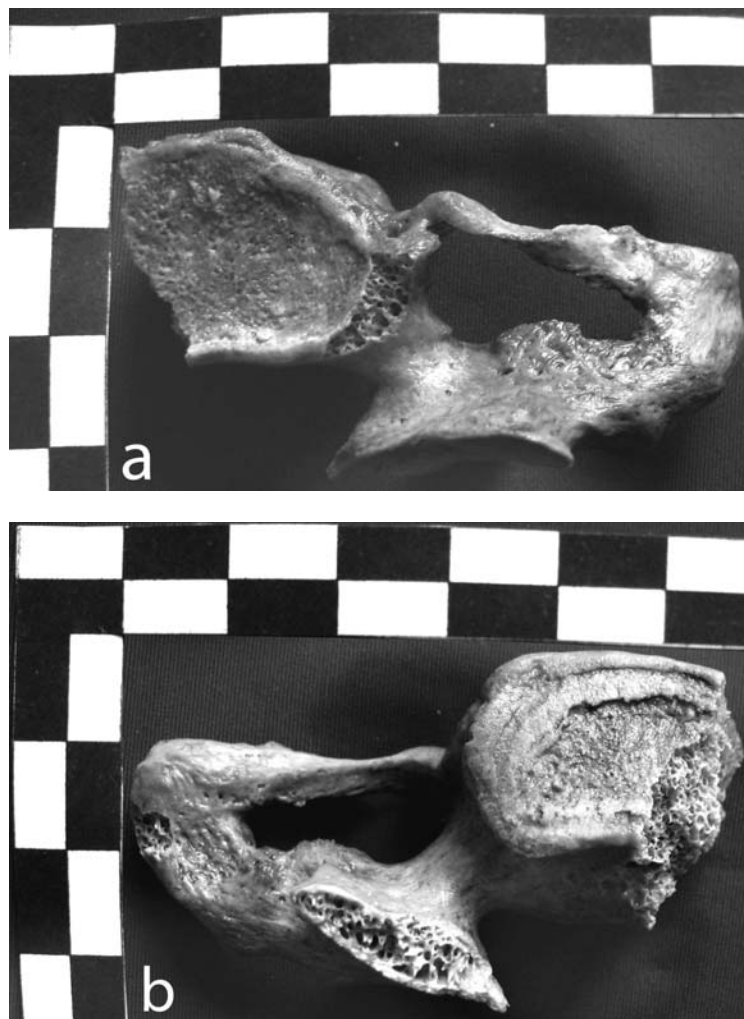


Fig. 1 – Fragment of cervical vertebra, skeleton from grave N 16, Pliska, male, 35–40 years of age at death, a) proximal and b) distal view.

The cervical vertebra from grave N 258 from “St. 40 Martyrs” (Fig. 2), resembles to a certain extent the finding from Pliska, grave N 16. The skeleton was incomplete and fragmentary. Predominantly, bones from left side were found, including the complete humerus, radius and ulna, the femur, the tibia, and a relatively big fragment of the left pelvic bone. The ribs were highly fragmented and in incomplete number. The right clavicle and fragments of right scapula, fragments from carpals and tarsals, including both taluses, metacarpals, and phalanges were also present. The vertebral column was represented by fragments from 3<sup>rd</sup>–7<sup>th</sup> cervical vertebrae, the 1<sup>st</sup>–5<sup>th</sup> thoracic vertebrae and all lumbar vertebrae, in relatively good condition (i.e. at least a big portion or whole vertebral body preserved). From the cranium were present only fragments from the frontal, with the upper orbital margin and portion of the orbital surface, both parietal and both temporal bones, while maxilla, mandible, respectively dentition, were missing. Both zygomatic bones were missing, and no fragments from the occipital were found. The individual was identified as a male, based on the form of the sciatic notch on the fragment of the pelvic bone and some signs on the cranial fragments. Obtained measurements of long bones fell also into characteristic mean values for male gender. The age at death was estimated approximately at 50–60 years, based on the cranial suture closure on the preserved segments on fragments. In this case, vertebrae from the thoracic section showed clear signs of degenerative joint disease with spondylosis of vertebral body edges and osteochondrosis on the proximal and distal articulation surfaces. Most affected appeared the 2<sup>nd</sup>–3<sup>rd</sup> thoracic vertebrae. Edges of lumbar vertebrae were highly destructed and the presence/absence of spondylosis was difficult to ascertain, but the presence of osteochondrotic changes and fragileness of the edges of vertebrae suggest the presence of such changes. Vertebral bodies from the cervical section also showed degenerative joint disease, expressed as spondylosis of the articulation surface edges and osteochondrosis. On the remaining preserved material from this skeleton no other pathological changes were ascertained. In this individual the 6<sup>th</sup> cervical vertebra showed a widened left transversal foramen (Fig. 2 a, b, c), reaching more than 15 mm in diameter (destruction of the bone did not allow certain measurements). In this case the bone limiting the foramen appears thinner than normal and the form preserves a more accurate oval shape. The preserved part from the left side allows clear ascertainment of lack of similar changes. The distal surface of the vertebral body shows reaction signs of arthritis infection.

A different change was ascertained on the cervical vertebra belonging to the skeleton from the grave N 273, “St. 40 Martyrs” (Figs. 3–4). This skeleton presented big fragments from both femurs and both tibiae, the whole right humerus and fragments from the left one, fragments from the right radius and ulna and whole

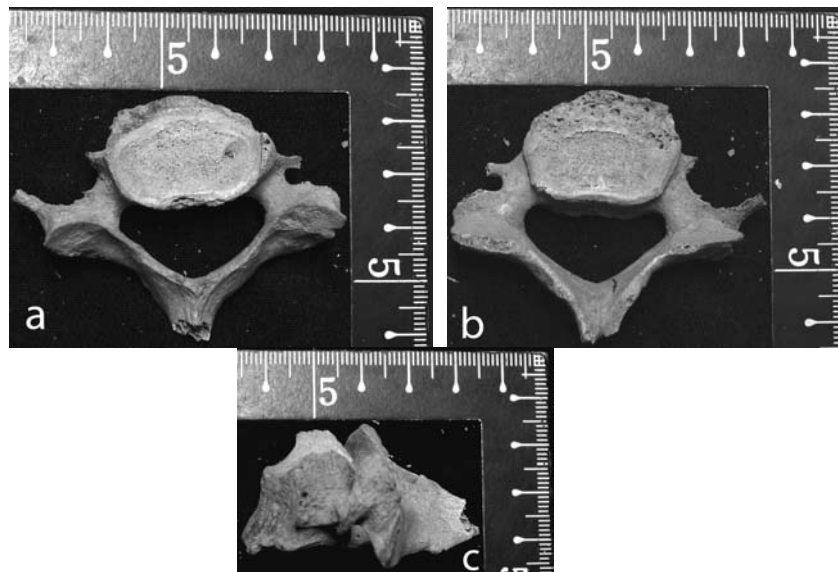


Fig. 2 – Fragment of cervical vertebra, skeleton from grave N 258, St. 40 Martyrs, Veliko Tarnovo, male, 50–60 years of age at death, a) proximal, b) distal and c) lateral view.

preserved left ones, both clavicles, fragments from both scapulae, fragments from both pelvic bones, including left pubic bone, fragments of some of the ribs, carpals and metacarpals, tarsals and metatarsals, and phalanges. Skull bones were fragmented, but all cranial vault bones – represented, the whole maxilla with both zygomatics attached to it, a big part of the mandible (left condyle missing), and most of the dentition. In this skeleton the vertebral column was better preserved, with all cervical vertebrae, some of which showing light damages on vertebral arches, 1<sup>st</sup>–3<sup>rd</sup> and 5<sup>th</sup>–11<sup>th</sup> thoracic vertebrae, with 4<sup>th</sup> thoracic vertebra highly destructed post mortem and 12<sup>th</sup> thoracic vertebra missing. From the lumbar section 2<sup>nd</sup>–5<sup>th</sup> vertebrae were present, 1<sup>st</sup> appeared to be destroyed post mortem. The individual was identified as male, based on preserved fragments of pelvic bones and sacrum and on some features detected on cranial fragments, in agreement with values of the measurements of limb bones. Age at death was estimated to be approximately 50–60 years based on the symphyseal surface relief on the pubic bone and the cranial suture closure. The dentition showed six teeth lost *ante mortem*. The long bones of the limbs showed signs of early stage of degenerative joint disease on the humeral heads and the glenoid fossae in both shoulders, on the olecranon of both ulnae, and on the femoral heads and the acetabulum in both hip joints. Slight changes from degenerative joint disease were observed on some of the thoracic and lumbar vertebrae. Other parts of this skeleton did not show pathological changes. The seventh cervical vertebra (Fig. 3 a, b) appears to have bipartite left transverse foramen. The right one is partially destructed, but it can be certainly reconstructed as one partite. The posterior opening of the left transverse

foramen, which appears to have been wider, is totally closed by the accumulation of a porous obliterated bone formation (Fig. 4 a, b). The anterior opening remained intact. The preceding 6<sup>th</sup> cervical vertebra did not show changes (Fig. 5 a). The succeeding 1<sup>st</sup> thoracic vertebra shows porous degeneration on the right articulation surface of the vertebral arch (Fig. 5 b).

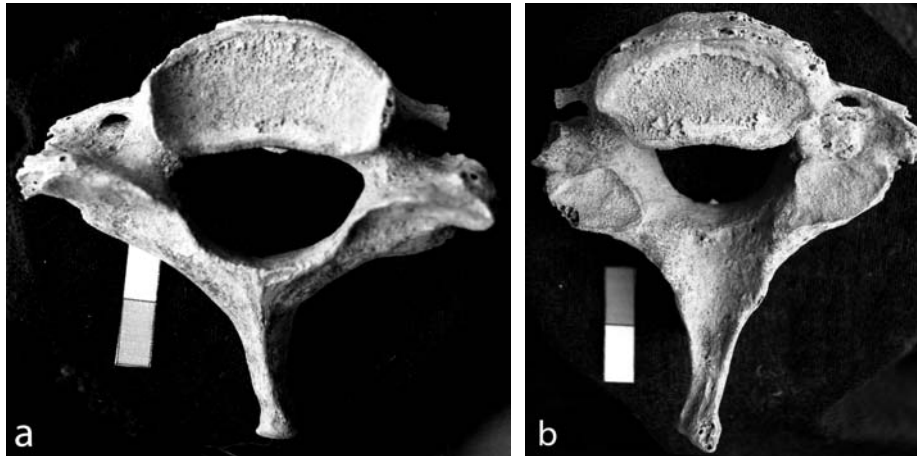


Fig. 3 – 7<sup>th</sup> cervical vertebra, skeleton from grave N 273, St. 40 Martyrs, Veliko Tarnovo, male, 50–60 years of age at death, a) proximal and b) distal view.



Fig. 4 – 7<sup>th</sup> cervical vertebra, skeleton from grave N 273, St. 40 Martyrs, Veliko Tarnovo, left transversal foramen, a) proximal and b) distal view, detail.

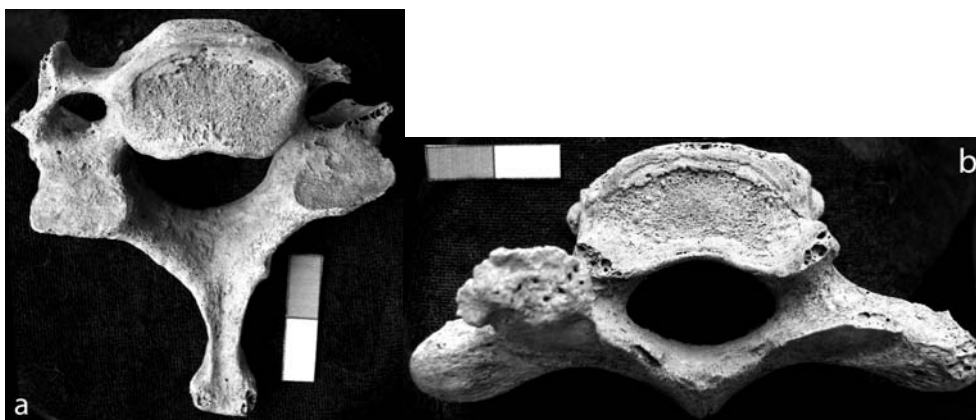


Fig. 5 – a) 6<sup>th</sup> cervical vertebra, distal view; b) 1<sup>st</sup> thoracic vertebra proximal view, skeleton from grave N 273, St. 40 Martyrs, Veliko Tarnovo.

#### DISCUSSION

The analysis of these three findings, allowed them to be grouped, as the vertebrae from grave N 16, Pliska and N 258, “St. 40 Martyrs”, Veliko Tarnovo show enlargement of the transversal foramen, in one case on the right, and in the other, on the left side. It should be pointed out, that in these cases no erosion was found on vertebral bodies, which could be interpreted as aneurysmal erosion, according to definitions in the literature (Aufderheide Rodriguez-Martin 1998: 78–80, Ortner 2003: 356–357). While being the most pronounced case of transversal foramen elongation, the vertebra from grave N 16, Pliska, does not show any signs of traumatic lesion. The other vertebra from grave N 273, “St. 40 Martyrs”, Veliko Tarnovo shows different changes. The observed changes in transversal foramina of the three vertebrae could be interpreted as results of circulatory disturbances. The bone formation in the transversal foramen of the vertebra from grave N 273, “St. 40 Martyrs”, Veliko Tarnovo could be plaque, accumulated after serious arteriosclerosis. To a certain extent it could have been favored by the anatomical variation of the foramen with bipartite form and in some connection with changes on the 1<sup>st</sup> thoracic vertebra. The enlargement of the transversal foramen in the vertebrae from grave N 16, Pliska and N 258, “St. 40 Martyrs”, Veliko Tarnovo could be a specific response to aneurysm, possibly of the vertebral artery.

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## A BRIEF OVERVIEW OF “FRANCISC J. RAINER” HUMAN OSTEOLOGICAL COLLECTION

ALEXANDRA ION<sup>1</sup>

The “Francisc J. Rainer” human osteological collection, one of the largest in Europe, is hosted at the Anthropology Institute of the Romanian Academy. The purpose of this article is to present a brief outline of how this collection came into being, its composition and its potential for future research. The origin of the collection dates back to the early 1900s, continuing until the 1950s, with a main core originating from the 1930–1940 period. It currently consists of approximately 6800 well-preserved human skulls and postcranial specimens. From the 3585 inventoried individuals’ skulls, 2123 belonged to adult males, 1194 to adult females and there are 214 children ones. Most of the individuals died between 18 and 60 years. The human remains were gathered from 33 institutions – hospitals, and morgues. Most individuals were of lower socio-economic background: peasants, workers, beggars, prostitutes. Due to the large number of specimens of both sexes and ages, as well as the broad range of pathologies represented, the Francisc J. Rainer collection has an important potential for future research.

**Key words:** osteological collection, skull, demography, pathology, research collection.

### INTRODUCTION

The purpose of this article is to present a brief outline of the history and current state of “Francisc J. Rainer” human remains collection, in order to highlight its potential for future research. Even though it is currently one of the largest osteological collections in Europe, it is relatively unknown.

In nineteenth and twentieth century such collections were created throughout the world. All the current methods employed for demographic and paleopathological studies in physical anthropology are built upon such documented skeletal collections, as is the case of the Terry collection (Smithsonian Institution), Hamann-Todd Collection (The Cleveland Museum of Natural History), or Maxwell Museum Documented Collection (University of New Mexico) just to name a few (Komar and Grivas

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2008, 224; for a list of reference collections see Usher 2002). Also, they have been used as comparison material for the archaeological skeletal series (Komar and Grivas 2008, 224).

### HISTORICAL OVERVIEW

The story of the collection began in March 1919, when Paul Petrini (1919), the head of the Anatomy Museum of the Medical School, University of Bucharest, addressed a letter to the dean of the Medical School, proposing to separate the Museum of Anatomy as an independent institution.

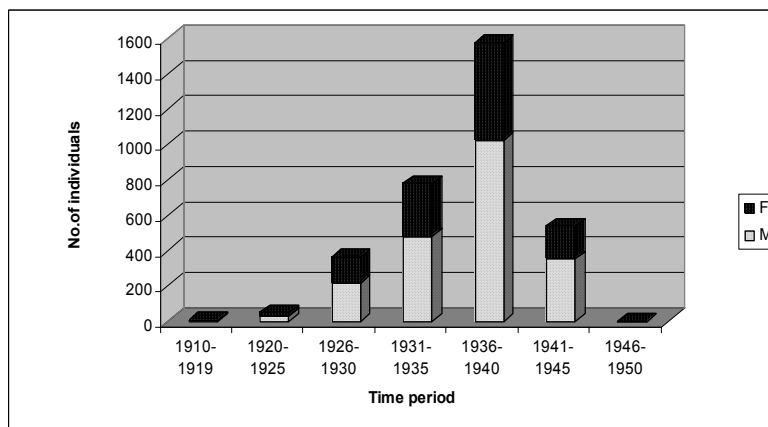
This new institution was meant to develop along the lines of the emerging science of Anthropology. In the context of an international growing focus on race studies (Turda 2006) and the newly unified national state of Romania, the osteological collection could have created a scientific basis for defining the ethnic characteristics of the Romanian people. It would have provided a reference collection for raseological, demographic and pathological studies. These premises must be sought in the development of a scientific worldview that led to an understanding of nation in biological terms (Turda 2007, 361). Anthropologists used craniometry and physiological studies to create an objective definition of the nation and race, both being defined as composed of quantifiable biological traits (Turda 2006; for a general history of Physical Anthropology see Little and Sussman 2010).

Paul Petrini's request was put on hold. However, the interwar period witnessed a growing interest for anthropological studies in Romania. Between 1920 and 1940, three research centers for anthropology were organized, and the first studies that applied the methods and theories of anthropology appeared (Milcu 1954).

Petrini's initiative re-emerged and was fulfilled during Francisc J. Rainer's (1874–1944) mandate as director of the Institute of Anatomy and Embriology at the Medical School in Bucharest. He was also professor of Anatomy at the latter institution. Rainer had started collecting osteological and histological materials since 1900 (Rainer 1939) for the anatomy lessons he was teaching at the Medical School (first in Iasi and then in Bucharest, Sevastos 1946, 13–14). After the first WW, the number of dead body bodies used as teaching material increased, providing the opportunity to retain human remains for the collection. As a chair of the Anatomy Department at the Bucharest Medical School, Rainer expanded the collection until his retirement in 1940. The majority of specimens (70.2 %) were collected between 1931 and 1940. The last ones are from the 1956's<sup>2</sup> (Graphic 1).

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<sup>2</sup> All the data regarding the specimens that are part of the Francisc Rainer collection are derived from a Microsoft Access Database of the collection that was created by M. Constantinescu, A. Soficaru and A. Ion. A summary of these data has been previously presented as a brief conference in May 2009, at the Francisc J. Rainer Symposium.



Graphic 1 – Time periods when the specimens were collected.

In parallel with enriching the collections of the Institute of Anatomy Rainer directed his efforts towards building a new pavilion in the Medical Faculty courtyard, intended for depositing and preparation of cadavers as anatomical teaching materials for the Medical School. The construction started in 1927 and, after some interruptions, it was finished in 1938 (Rainer 1936; Zamfirescu 1938). It is also apparent (Rainer 1939) that his intention was for this new building to house also the anatomical collection of the institute he was conducting. Thus, on December 4<sup>th</sup> 1939, Rainer was writing to the Dean of the Medical School (Rainer 1939):

“[...] the anatomical collection of this Institute [...] whose history dates before 1900, [...] for a better research to be reorganized as the Museum and laboratory of Anthropology”.

Apart from moving the collection, he requested a full separation of the Museum and laboratory of Anthropology from the Institute of Anatomy within the Medical School. The request was granted by the Medical School Council and the Dean’s Office (Mezincescu 1939). Subsequently, on November 13 1942, through a political decree<sup>3</sup>, the Museum and laboratory of Anthropology became the Institute of Anthropology, an independent entity part of the University of Bucharest.

In 1940 the osteological collection comprised of over 4000 crania, and 600 pieces of bone micromorphology (Sevastos 1946, 14). Its purpose was to assist in studying the Romanian people through the morphological variability and the human body in its various forms of manifestation.

Not without importance is that the collection came into being in parallel with Rainer’s efforts to build a distinct space to house it. By moving it into the new cadaver pavilion, it became associated with a stable landmark in the landscape. The collection was linked to the medical teaching by its location and history, but meant for an autonomous future through association with the newly found Anthropological Institute.

<sup>3</sup> Law 822/1942, Published in Monitorul Oficial, part 1, 13 nov.1942, p. 9898.

### COLLECTION OUTLINE

Nowadays, the collection consists of skulls of approximately 6800 individuals<sup>4</sup>, of which 3585 have been inventoried: 2123 adult males, 1194 adult females and 214 children<sup>5</sup> (Table 1).

Most of the human crania have an explicative sheet, which reflects the type of data that were deemed relevant for and constitutive of the anthropological scientific research. The recorded information includes age, sex, ethnicity, pathology, cause of death and profession. The inclusion of the socio-professional information underlines Rainer's multidimensional concept of anthropology, linking biological, psychological, economical, cultural, and social aspects of the human being.

The specimens of the collection are well-preserved. Some of the crania bear signs of autopsy, and most of them have mandible and all or most of the teeth present.

Half of the crania have known identity: 2061 adult males, 1173 adult females, and 75 children. The number of males is almost double than those of females, and the number of children is just 5.6% of the total number of crania. Regarding the age of death of the individuals, 80% have died between 18 and 60 years (there is approximately the same proportion in all age categories), 18% died between 60 and 80 years and the rest of 2% died above 80 (Table 1). The high percentage of young and middle-aged individuals is due to the context from where the bodies have been collected. The human remains were gathered from 33 institutions – hospitals, and morgues. The most important are: the Central Hospital, Colentina Hospital, Pantalimon Hospital, Zerlendi Hospital. As most of the individuals come from poor environments it can be inferred that the Faculty of Medicine received the unclaimed dead bodies. Although there is no information relating to this subject, it is most likely not only that the subjects did not give their consent, but also that they were not even aware of what should happen to their remains.

There are 135 male professions listed, the majority of which are workers (50 %), and peasants (15.1 %) (Graphic 2). There are 29 female occupations, the majority workers (38 %), servants (7.5 %) and housewives (41.2 %) (Graphic 3). The percentage of intellectual professions is only 0.5 % and there is a well represented category of marginal socio-economical categories: beggars, prostitutes, vagrants.

There are 168 causes of death registered for men and 137 for women<sup>6</sup>. The most common cause of death registered is tuberculosis, paralysis, cardio-vascular diseases, and pneumonia (Graphic 4). There are also some unusual causes of death (maniac delusion, dementia) or violent deaths (through suicide or execution).

From an ethnic point of view, the majority is classified as Romanians (93%), and the remaining 235 individuals are from 23 ethnic minorities: Jews, Germans, Turks etc. (Graphic 5).

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<sup>4</sup> Information N. Miritoiu.

<sup>5</sup> Under 18 years of age.

<sup>6</sup> There are also 167 men and 117 women with no specified cause of death.

Table 1<sup>7</sup>.

Age categories of the individuals from the Francisc J. Rainer collection  
(the values in parentheses are the number of individuals with unknown identity other  
78 adult males, 34 adult females and 49 children have no specified age)

<i>Age category</i>	<i>Males</i>	<i>Females</i>	<i>Unknown sex</i>
0-1	–	1 (1)	8
1-5	10 (1)	5 (1)	19
6-10	8 (2)	5	11
11-15	21	14	12
16-20	86	85	2
21-25	128	119	–
26-30	151	125	–
31-35	211 (3)	130	–
36-40	253 (1)	156	–
41-45	248 (7)	123	–
46-50	225 (1)	112	–
51-55	231 (2)	66	–
56-60	195 (1)	78	–
61-65	144 (2)	82	–
66-70	108	42	–
71-75	55	38	–
76-80	33	32	–
81-85	13	12	–
86-90	12	6	–
91-95	1	1	–
<b>Total</b>	<b>2133 (20)</b>	<b>1232</b>	<b>52</b>

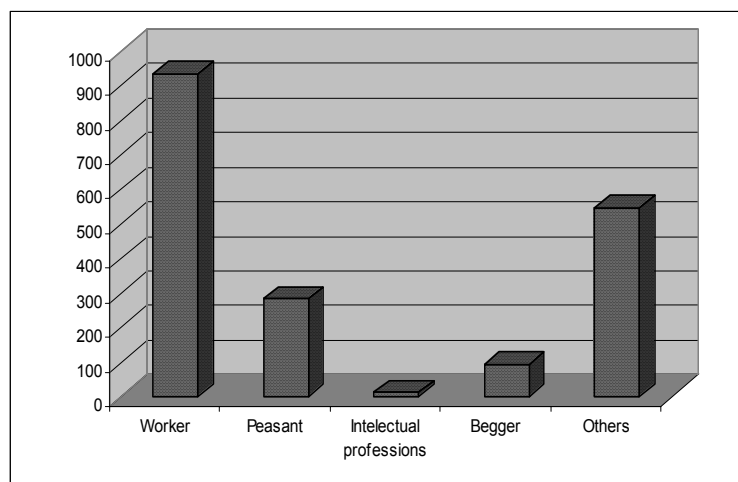
#### STUDYING THE COLLECTION

So far, the collection received limited attention, with only a few studies approaching areas of dental pathology (Firu and Apostolescu 1999), skull morphology (Firu *et al.* 1956, Firu *et al.* 1957; Haas and Maximilian 1957; Haas *et al.* 1961; Ionescu *et al.* 1954; Maximilian 1957; Neagu 1954; Necrasov 1954; Popovici *et al.* 1975; Tudor and Ionescu 1949), developmental studies (Firu and Săhleanu 1954; Maximilian 1956; Necrasov *et al.* 1966; Mirițoiu and Soficaru 1999), sexual dimorphism (Ionescu *et al.* 2007; Ionescu and Beliș 2010) and historiographic reviews (Milcu 1954).

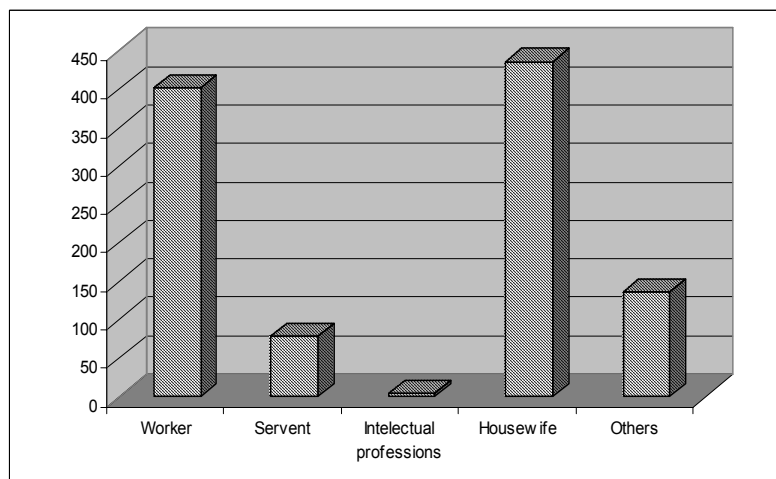
From a traditional physical anthropology perspective, the collection provides the opportunity for testing and perfecting the methods for analyzing human remains, and a reference sample for comparative studies interested in morphological variation, pathology, population variability. It also allows insights into a wide range of pathologies, from dental ones (abscesses, caries, edentation) to arthritis, hydrocephaly, tumors, cancer, syphilis or leprosy.

<sup>7</sup> Some of the individuals had as a recorded age an interval of a decade. For practical reasons, they were included into the category from the first half of the interval (e.g.: if an individual had as age an interval from 20 to 30 years, he was included in the 21–25 category).

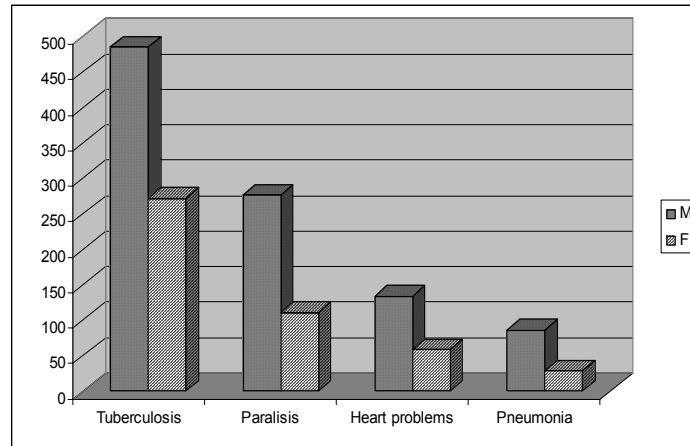
However, beyond this type of analysis focusing on a materialistic/empiricist view of the human body, based on measurable and quantifiable traits, there is another fruitful dimension of the research: to understand the theoretical and historic background leading to the creation of such collections. By analyzing the premises behind collecting dead and fragmented human bodies one might get an insight into the way the human body and persona were defined, understood and recreated in the context of a modern scientific discourse. Such an endeavor might bring a new dimension to a historical narrative regarding medical collections of human remains, namely a particular way of relating to and defining humanity.



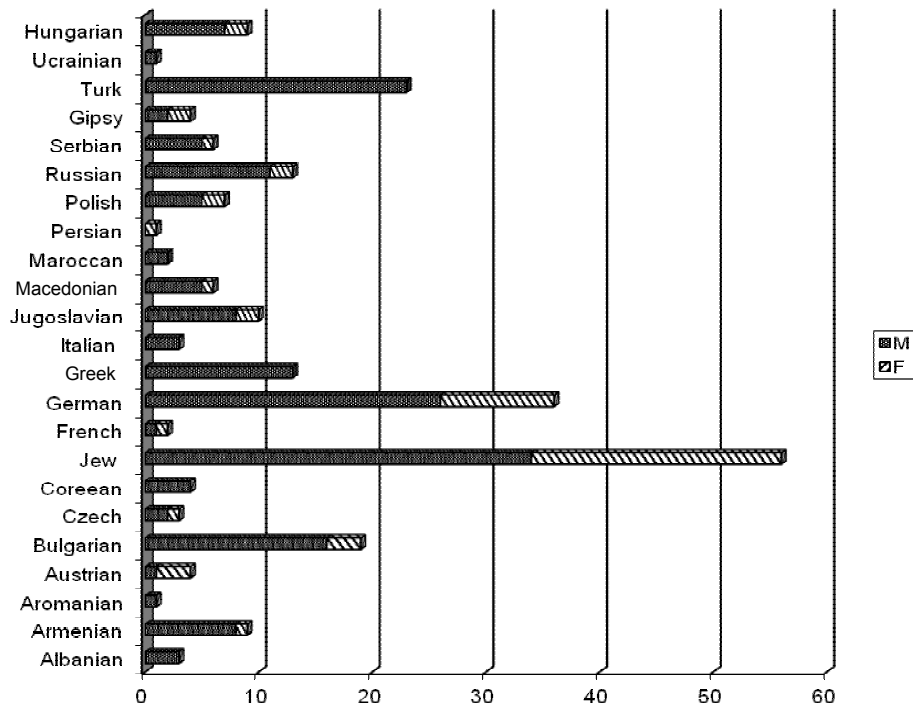
Graphic 2 – Male professions in the Francisc J. Rainer crania collection.



Graphic 3 – Female professions in the Francisc J. Rainer crania collection.



Graphic 4 – Main causes of death of the individuals from the Francisc J. Rainer collection.



Graphic 5 – Ethnic minorities recorded in the Francisc J. Rainer collection<sup>8</sup>.

<sup>8</sup> The ethnic names are those recorded by Rainer and even though some have changed (notably *Roma people* instead of *Gipsy*) they were kept in order to illustrate his conception in a specific historical context.

*Acknowledgments.* I wish to express my gratitude to Andrei Soficaru and Mihai Constantinescu for providing access to the collection database, to Cristina Glavce for entrusting me with documenting the history of the Institute of Anthropology and to Consuel Ionică for sharing data on the history of collection. I also thank Andrei Soficaru, Consuel Ionică and Ștefan Dorondel for reviewing the manuscript. All the information regarding the history of the osteological collection is the result of a research at the Bucharest archives institutions, during 2009–2010, a research conducted with my colleague Consuel Ionică.

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# ASPECTS DE MORPHOLOGIE EXTERNE DE L'ŒIL CHEZ LES ÉCOLIERS DÉFICIENTS DE LA VUE

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The study of some external morphological characteristics of orbital region and of eye is coming to complete the anthropological research regarding the children and teenagers from the School for Visual Deficients from Bucharest. The sample is composed of 152 deficient subjects and 152 normal subjects from the School no. 150 from Bucharest. The research was conducted between 2006 and 2007. We applied the classical and comparative methods of Martin Saller and Weninger-Pösch, the method of correlations, and we used signification tests. The result emphasizes some significant differences between the two lots regarding the relation between the eyebrows, the aperture of slit of eyelids, the position of sulcus orbitalis and globe of the eye, the structure and pigmentation of iris. Sexual dimorphism is better expressed by phenotypes to the normal subjects. The visual disability stands out in significant correlation with the superior eyelid and the pigmentation of iris. We emphasize that the paper is a first research of this kind in the Romanian Anthropology.

**Key words:** visual receiver, visual deficiency, external morphology, pigmentation of iris.

## INTRODUCTION

La morphologie externe de la région orbitaire et de l'œil a un poids important à la réalisation de la physionomie, de l'expressivité du visage. En même temps elle trahit certaines souffrances et maladies.

Une déficience de la vue modifie, plus ou moins, la physionomie d'un individu, particulièrement l'expression phénotypique des caractères morphologiques externes de la région orbitaire et de l'œil. C'est la raison pour laquelle nous avons ajouté à nos études anthropologiques concernant les déficients de la vue une recherche sur quelques traits qui décrivent une série de caractères de largeur, longueur, relation, proportion, pigmentation etc. des deux plans d'observation, frontal et latéral, de la région orbitaire et de l'œil.

Il y a peu d'études anthropologiques roumaines concernant la morphologie externe de l'œil: quelques travaux sur certains caractères d'observations de la région orbitaire dans quatre villages du Couloir Bran-Rucăr (Elena Radu, 1969:

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59–66; 1970: 39–44, 59–70; 1971: 47–58); des références inclues dans la caractérisation morphotypologique des diverses populations étudiées concernant, plus souvent, la pigmentation de l'iris et, moins, la grandeur de la fente palpébrale; des travaux concernant la ressemblance enfants/parents par quelques caractères morphologiques du visage (C.Vulpe *et al.*, 1992: 67–78; 1993: 51–61; 1994: 51–63; 1995: 57–66) et, finalement, deux travaux sur les modifications diachroniques des quelques caractères morphologiques et pigmentaires dans la population de six villages de Bran-Braşov (Eleonora Luca *et al.*, 2005: 58–69; 2010: 225–235).

Au niveau du pays les données mettent en évidence une fente palpébrale d'ouverture moyenne vers large et l'iris à une pigmentation intermédiaire et foncée. Par rapport aux hommes, chez les femmes l'ouverture de la fente est plus large et l'iris plus foncé. Sous l'aspect microévolutif les sourcils deviennent plus minces et plus distancés, la paupière supérieure plus chargée, la fente palpébrale s'élargit et la pigmentation de l'iris devient plus foncée.

Les auteurs du présent travail ont fait partie, plus de vingt ans, d'une commission de la recherche en paternité par les caractères métriques et morphologiques, parmi lesquels se sont trouvés aussi des caractères concernant la région orbitaire et l'œil. Il faut souligner que ce travail est le premier de cette sorte dans l'anthropologie roumaine et qu'il vient avec une modeste contribution à l'enrichissement des données pour le diagnostic médical et à une meilleure connaissance de la morphotypologie des déficients de vue.

Excepté les circonstances qui ont limité le nombre des caractères descriptives et leur prélèvement soumis à un relatif subjectivisme, la recherche de la morphologie externe de l'œil chez les sujets déficients de vue reste une idée opportune.

#### MATÉRIEL ET MÉTHODES

Le matériel d'étude est représenté par deux lots d'enfants et adolescents écoliers bucarestois (les classes I–VIII), dont 152 sujets déficients de vue d'une école spéciale (55 filles et 97 garçons), respectivement, 152 sujets normaux de l'école № 150 (75 filles et 77 garçons).

Les données fondamentales sont les phénotypes des 14 caractères de la région orbitaire et de l'œil concernant les sourcils, les cils, le sulcus orbitaire supérieur, la fente palpébrale, les paupières, le globe oculaire et l'iris. Pour l'inscription des données on a utilisé une fiche anthropologique pour les caractères descriptives d'après celle de l'expertise de la paternité (maternité) et de l'étude de la ressemblance entre les enfants et leurs parents.

Ont été appliquées les méthodes comparatives de Martin-Saller, Weninger-Pösch, le schéma Erhardt pour le taux du chargement de la paupière supérieure et l'échelle de Martin-Schultz pour la pigmentation de l'iris (R. Martin et K. Saller, 1962: 1751–1790, 2028–2039; J. Weninger et Hella Pösch, 262–270).

On a calculé les fréquences relatives des phénotypes morphologiques et pigmentaires selon le caractère et le sexe chez les sujets déficients de vue par

rapport aux sujets normaux. Pour prouver la certitude des différences entre les deux lots ont été utilisés des tests statistiques de signification.

Nous avons appliqué aussi la méthode des corrélations et des tableaux de contingence entre les types de déficience de vue et les phenotypes des dix caractères descriptives de la région orbitaire et de l'œil chez les sujets déficients pour saisir une possible dépendance entre les deux variables (déficience vs. caractère morphologique ou pigmentaire).

## RÉSULTATS

### 1. CARACTÉRISATION GÉNÉRALE DES DÉFICIENTS DE VUE (Tableau 1)

Tableau 1

L'appréciation comparative des différences morphologiques et pigmentaires de l'œil chez les deux lots. Dimorphisme sexuel

Caractère	Déficients de vue			Normaux			$\chi^2$	Dimorphisme sexuel	
	N	n	%	N	n	%		Déf.v	Norm
								ue	.
							$\chi^2$	$\chi^2$	
<b>1. Largeur des sourcils</b>	152			152					
– étroits		8	5,26		10	6,58	0,24	2,52	1,82
– moyens		74	48,68		78	51,32	0,21	5,91*	5,91*
– larges		70	46,05		64	42,11	0,48	9,91*	9,84*
<b>2. Largeur de la tête sourcilière</b>	152			152					
– large		70	46,05		74	48,68	0,21	5,07*	4,44*
– moyenne		77	50,66		73	48,03	0,21	2,68	3,75
– étroites		5	3,29		5	3,29	0,00	2,91	0,23
<b>3. Relation des sourcils</b>	152			151					
– rapprochés		20	13,16		8	5,30	5,56*	0,01	2,04
– presque indépendants		19	12,50		12	7,95	1,70	0,20	1,38
– indépendants		113	74,34		131	86,75	7,42*	0,18	3,54
<b>4. Ouverture palpébrale</b>	151			150					
– étroite		15	9,93		19	12,67	0,56	0,07	9,73*
– moyenne		48	31,79		76	50,67	11,03*	0,30	0,66
– large		88	58,28		55	36,67	14,05*	0,13	8,97*
<b>5. Profondeur du sulcus orb. supérieur (NF)</b>	152			151					
– profond		31	20,39		5	3,31	21,05*	3,10	0,22
– moyen		80	52,63		90	59,60	1,49	1,86	2,02
– visible		41	26,97		56	37,09	3,55	0,00	2,61

(cont. tableau 1)

<b>6. Position sulcus / arcade (NL)</b>	152			151					
– peu en arrière		41	26,97		27	17,88	3,59	1,16	2,08
– moyennement		87	57,24		117	77,48	14,07*	1,43	2,28
– fortement en arrière		25	15,79		7	4,64	10,23*	0,10	0,14
<b>7. Schéma Erhardt (chargement des paupières)</b>	152			152					
– taux élevé (I)		35	23,03		50	32,89	3,66	1,13	13,49*
– taux réduit (II)		110	72,37		102	67,11	0,99	0,68	13,49*
– sans plis (III)		7	4,61		–	–	7,14*	0,14	–
<b>8. Longueur des cils</b>	151			152					
– longues		77	50,99		85	55,92	0,74	0,00	1,65
– moyens		70	46,36		67	44,08	0,16	0,26	1,93
– courts		4	2,65		–	–	4,07*	2,62	–
<b>9. Position globe oculaire (NL)</b>	151			152					
– profonde		9	5,96		1	0,66	6,65*	2,63	0,97
– moyenne		114	75,50		129	84,87	4,18*	0,94	0,02
– proéminente		28	18,54		22	14,74	0,91	0,01	0,00
<b>10. Largeur zone pupillaire de l'iris</b>	144			152					
– large		14	9,72		48	31,58	21,26*	1,43	7,15*
– moyenne		85	59,03		72	47,37	4,02*	0,00	1,27
– étroite		45	31,25		32	21,05	3,98*	0,53	2,79
<b>11. Marquage couronne de l'iris</b>	140								
– accentué		14	10,00					0,50	
– intermédiaire		77	55,00					7,35*	
– transition indistincte		49	35,00					10,71*	
<b>12. Dentelure de la couronne de l'iris</b>	139			152					
– grande		11	7,91		9	5,92	0,45	0,54	0,97
– moyenne		58	41,73		81	53,92	3,88*	3,97*	0,00
– petite		70	50,36		62	40,79	2,67	5,58*	0,21
<b>13. Largeur de la zone ciliaire de l'iris</b>	141			138					
– large		20	14,18		21	15,22	0,06	0,00	0,73
– moyenne		113	80,41		108	78,26	0,15	0,01	2,00
– étroite		8	5,67		9	6,52	0,09	0,03	1,26
<b>14. Pigmentation de l'iris éch. Martin-Schultz</b>	150			152					
– claire		15	10,00		5	3,29	5,48*	1,84	1,77
– intermédiaire-claire		20	13,33		23	15,13	0,20	0,81	0,09
– intermédiaire-foncée		58	38,67		62	40,79	0,14	0,54	5,94*
– foncée		57	38,00		62	40,79	0,25	0,28	4,70*

\* différences statistiquement significatives

*Les sujets déficients de vue ont les sourcils moyens et larges, prédominant indépendants avec la tête moyenne et large. Le sulcus orbitaire est plus fréquemment d'une profondeur et d'une position moyenne par rapport à l'arcade sourcilière. L'ouverture de la fente palpébrale est davantage large et les paupières ont un taux réduit de chargement. Les cils sont longues et/ou moyens. Le globe oculaire a une position moyenne par rapport à l'arcade orbitaire. L'iris a la zone pupillaire (interne) d'une largeur moyenne vers étroite et la zone ciliaire (externe) moyenne. La couronne de l'iris a un marquage peu accentué vers indistinct et une dentelure fine et/ou moyennement entaillée. La pigmentation de l'iris est prédominant intermédiaire-foncée et foncée.*

*Par rapport aux sujets normaux, les déficients de vue ont plus de sourcils rapprochés et moins indépendants, une fente palpébrale plus large, le sulcus orbitaire et le globe oculaire plus profonds, l'iris avec une zone pupillaire plus étroite et une dentelure de la couronne plus fine. Les deux lots se ressemblent, en général, par une pigmentation de l'iris intermédiaire-foncée et foncée, excepté la pigmentation claire, plus fréquente chez les déficients.*

En ce qui concerne *les différences morphologiques et pigmentaires* entre les deux sexes, celles-ci sont présentes davantage chez les sujets normaux (6/13: 4/14).

Par rapport aux garçons, les filles déficientes de vue ont des sourcils prédominant moyens avec la tête plus large. La couronne de l'iris a un marquage plus accentué et la dentelure plus grande.

Chez les sujets normaux, les filles ont plus de sourcils moyens et étroits, la tête des sourcils moins large et la fente palpébrale plus large. Les filles ont une fréquence très haute des paupières déchargées. La zone pupillaire de l'iris est faiblement plus étroite. Chez les filles prédominent l'iris intermédiaire-foncé tandis que chez les garçons davantage l'iris foncé.

## 2. LES DIFFÉRENCES MORPHOLOGIQUES ET PIGMENTAIRES ENTRE LES DEUX LOTS SELON LE SEXE (Tableaux 2 et 3)

### 2.1. Les garçons (Tableau 2)

Par rapport aux garçons normaux, *les déficients* ont la tête des sourcils moins large et des cils plus courts. La fente palpébrale a une ouverture nettement plus large. Les paupières supérieures ont un taux de chargement plus réduit, d'après le schéma Erhardt. Le sulcus orbitaire est plus profond et plus fortement positionné en arrière par rapport à l'arcade sourcilière, aussi le globe oculaire. L'iris a une zone interne (pupillaire) plus étroite et une dentelure plus fine.

Les garçons des deux lots se ressemblent par la pigmentation de l'iris. Les nuances foncées et intermédiaire-foncées prédominent.

## 2.2. Les filles (Tableau 3)

Par rapport aux filles normaux, *les filles déficientes de vue* ont plus de sourcils rapprochés et la tête plus large et des cils un peu plus courts. Le sulcus orbitaire est plus fréquemment positionné fortement en arrière. Chez celles-ci se trouvent aussi des paupières supérieures sans plis.

Finalement, on observe plus de différences significatives entre les garçons par rapport aux filles dans les limites des caractères considérés (8/13 : 5/13).

Tableau 2

La variabilité morphologiques et pigmentaire de l'œil chez les garçons

Caractère	Déficients de vue			Normaux			$\chi^2$
	N	n	%	N	n	%	
<b>1. Largeur des sourcils</b>	97			77			
– étroits		3	3,09		3	3,90	0,08
– moyens		40	41,12		32	41,56	0,00
– larges		54	55,67		42	54,55	0,02
<b>2. Largeur de la tête sourcilière</b>	97			77			
– large		38	39,17		44	57,14	5,53*
– moyenne		54	55,67		31	40,26	4,06*
– étroites		5	5,15		2	2,60	0,72
<b>3. Relation des sourcils</b>	97			76			
– rapprochés		13	13,40		6	7,89	1,31
– presque indépendants		13	13,40		8	10,53	0,33
– indépendants		71	73,20		62	81,58	1,67
<b>4. Ouverture palpébrale</b>	96			76			
– étroite		10	10,42		16	21,05	3,71
– moyenne		29	30,21		41	53,95	9,85*
– large		57	59,37		19	25,00	20,21*
<b>5. Profondeur du sulcus orb. supérieur</b>	97			76			
– profond		24	24,74		2	2,63	16,22*
– moyen		47	48,45		41	53,95	0,51
– visible		26	26,80		33	43,42	5,21*
<b>6. Position sulcus / arcade</b>	97			76			
– peu en arrière		29	29,90		17	22,37	1,23
– moyennement		52	53,61		55	72,37	6,32*
– fortement en arrière		16	16,49		4	5,26	5,23*
<b>7. Schéma Erhardt (chargement des paupières)</b>	97			77			
– taux élevé		25	25,77		36	46,75	8,25*
– taux réduit		68	70,10		41	53,25	5,18*
– sans plis		4	4,12		–	–	3,23
<b>8. Longueur des cils</b>	96			77			
– longues		49	51,04		47	61,04	1,72
– moyens		46	47,92		30	38,96	1,38
– courts		1	1,04		–	–	0,80
<b>9. Position globe oculaire</b>	96			77			
– profonde		8	8,33		1	1,30	4,26*
– moyenne		70	72,92		65	84,42	3,28
– proéminente		18	18,75		11	14,29	0,61

(cont. tableau 2)

<b>10. Largeur zone pupillaire de l'iris</b>	93			77			
– large		7	7,53		32	41,56	27,43*
– moyenne		55	59,14		33	42,86	4,45*
– étroite		31	33,33		12	15,58	6,98*
<b>11. Marquage couronne de l'iris</b>	92						
– accentué		8	8,70				
– intermédiaire		43	46,74				
– transition indistincte		41	44,56				
<b>12. Dentelure de la couronne de l'iris</b>	90			77			
– grande		6	6,67		6	7,79	0,08
– moyenne		32	35,55		41	53,25	5,25*
– petite		52	57,78		30	38,96	5,84*
<b>13. Largeur de la zone ciliaire de l'iris</b>	92			67			
– large		13	14,13		12	17,91	0,42
– moyenne		74	80,43		49	73,13	1,17
– étroite		5	5,43		6	8,96	0,74
<b>14. Pigmentation de l'iris éch. Martin-Schultz</b>	96			77			
– claire		12	12,50		4	5,19	2,70
– intermédiaire-claire		11	11,46		11	14,29	0,31
– intermédiaire-foncée		35	36,46		24	31,17	0,53
– foncée		38	39,58		38	49,35	1,65

\* différences statistiquement significatives

Tableau 3

La variabilité morphologiques et pigmentaire de l'œil chez les filles

Caractère	Déficients de vue			Normaux			$\chi^2$
	N	n	%	N	n	%	
<b>1. Largeur des sourcils</b>	55			75			
– étroits		5	9,09		7	9,33	0,00
– moyens		34	61,82		46	61,33	0,00
– larges		16	29,09		22	29,33	0,00
<b>2. Largeur de la tête sourcilière</b>	55			75			
– large		32	58,18		30	40,00	4,17*
– moyenne		23	41,82		42	56,00	2,53*
– étroites		–	–		3	4,00	2,23
<b>3. Relation des sourcils</b>	55			75			
– rapprochés		7	12,73		2	2,67	4,95*
– presque indépendants		6	10,91		4	5,33	1,38
– indépendants		42	76,36		69	92,00	6,17*
<b>4. Ouverture palpébrale</b>	55			75			
– étroite		5	9,09		3	4,05	1,37
– moyenne		19	34,54		35	47,30	2,09
– large		31	56,36		36	48,65	0,75
<b>5. Profondeur du sulcus orb. supérieur</b>	55			75			
– profond		7	12,73		3	4,00	3,38
– moyen		33	60,00		49	65,33	0,38
– visible		15	27,27		23	30,67	0,18

(cont. tableau 3)

<b>6. Position sulcus / arcade</b>	55			75			
– peu en arrière		12	21,82		10	13,33	1,61
– moyennement		35	63,64		62	82,67	6,02*
– fortement en arrière		8	14,54		3	4,00	4,53*
<b>7. Schéma Erhardt (chargement des paupières)</b>	55			75			
– taux élevé		10	18,18		14	18,67	0,00
– taux réduit		42	76,36		61	81,33	0,47
– sans plis		3	5,45		–	–	4,16*
<b>8. Longueur des cils</b>	55			75			
– longues		28	50,91		38	50,67	0,00
– moyens		24	43,64		37	49,33	0,41
– courts		3	5,45		–	–	4,05*
<b>9. Position globe oculaire</b>	55			75			
– profonde		1	1,82		–	–	1,36
– moyenne		44	80,00		64	85,33	0,64
– proéminente		10	18,18		11	14,67	0,29
<b>10. Largeur zone pupillaire de l'iris</b>	51			75			
– large		7	13,72		16	21,33	1,17
– moyenne		30	58,82		39	52,00	0,57
– étroite		14	27,45		20	26,67	0,01
<b>11. Marquage couronne de l'iris</b>	48						
– accentué		6	12,50				
– intermédiaire		34	70,83				
– transition indistincte		8	16,67				
<b>12. Dentelure de la couronne de l'iris</b>	49			75			
– grande		5	10,20		3	4,00	1,87
– moyenne		26	53,06		40	53,33	0,00
– petite		18	36,73		32	42,67	0,43
<b>13. Largeur de la zone ciliaire de l'iris</b>	49			71			
– large		7	14,29		9	12,68	0,06
– moyenne		39	79,59		59	83,10	0,24
– étroite		3	6,12		3	4,23	0,22
<b>14. Pigmentation de l'iris éch. Martin-Schultz</b>	54			75			
– claire		3	5,56		1	1,33	1,85
– intermédiaire-claire		9	16,67		12	16,00	0,01
– intermédiaire-foncée		23	42,59		38	50,67	0,81
– foncée		19	35,19		24	32,00	0,14

\* différences statistiquement significatives

### 3. ASSOCIATIONS ENTRE LA DÉFICIENCE VISUELLE ET LA MORPHOLOGIE EXTERNE DE L'ŒIL CHEZ LES ÉCOLIERS DÉFICIENTS DE VUE (Figures 1 et 2)

Chez les sujets déficients nous avons groupé la déficience visuelle en trois types selon le taux de gravité et la partie affectée: déficience totale (aveugles), bilatérale (sevère, moyenne, faible) et unilatérale (Eleonora Luca *et al.*, 2010: 27–38) (Fig. 1).



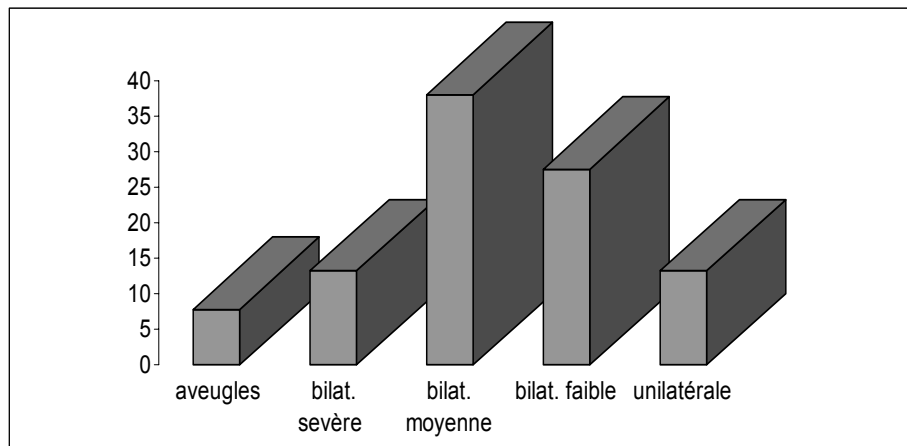


Fig. 1 – Types de déficience visuelle chez les sujets de l'école spéciale.

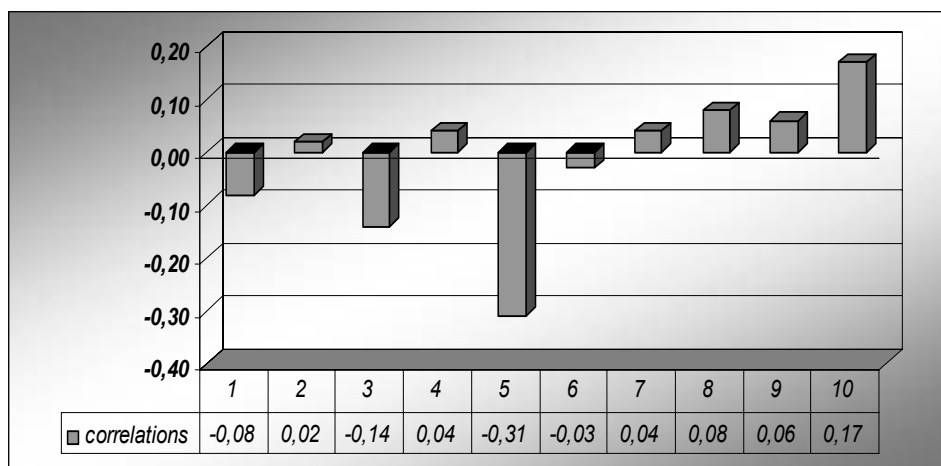


Fig. 2 – Corrélations entre la déficience visuelle et certains caractères descriptifs de l'œil.

1 – relation des sourcils; 2 – ouverture palpébrale; 3 – profondeur du sulcus orbitaire supérieur; 4 – position sulcus/arcade; 5 – chargement des paupières; 6 – position globe oculaire; 7 – largeur zone pupillaire de l'iris; 8 – marquage de la couronne de l'iris; 9 – dentelure de la couronne de l'iris; 10 – pigmentation de l'iris.

Pour prouver l'existence d'une liaison entre la déficience et certains traits descriptifs de l'œil ont été constituées des paires (couples) individuelles qui expriment sous forme numérique les deux éléments associés, respectivement le type de déficience (le premier chiffre) et le phénotype descriptifs correspondant (le deuxième chiffre) selon chaque individu. Méthodologiquement, c'est une analyse bivariée qui, à l'aide de ses paramètres spécifiques (corrélations ou associations), permet une appréciation du comportement d'une variable par rapport à l'autre (L. Dragomirescu, 1998: 162–195).

Sur la totalité de dix associations déficience/caractère descriptif (Fig. 2), quatre corrélations sont négatives, dont la corrélation entre le taux de chargement de la paupière supérieure et la déficience est statistiquement significative. Dans les tableaux de contingence on observe que l'augmentation de la gravité s'associe avec la réduction du chargement du paupière. Autres six corrélations sont positives, mais la seule significative (à la limite) est celle entre la déficience et la pigmentation de l'iris, qui devient graduellement plus foncée.

Les associations dignes de souligner sont celles trouvées entre les aveugles: les sourcils indépendants, les fentes étroites, le sulcus plus profond et fortement en arrière, les paupières sans plis, le globe oculaire plus proéminent. Chez les aveugles l'iris a la zone interne plus large, la couronne avec un marquage plus indistinct et plus finement entaillée, la pigmentation plus claire.

Les sujets avec une déficience bilatérale ont le sulcus plus visible et moyennement placé, le taux de chargement des paupières plus réduit, la couronne de l'iris plus marquée et plus large entaillée, la pigmentation de l'iris avec un poids plus grand des nuances intermédiaire-foncées.

Les sujets avec une déficience unilatérale ont des sourcils plus fréquemment rapprochés, la fente plus large, le taux de chargement des paupières plus accentué, la couronne de l'iris a une transition indistincte, la pigmentation plus foncée.

## CONCLUSIONS

Les caractères morphologiques et pigmentaire de l'œil étudiés sur les écoliers déficients de vue sont des caractères avec une hérédité multifactorielle. C'est pourquoi les résultats de la recherche demandent des limites d'interprétation. Ceux-ci se rapportent à la population examinée dans les conditions mésologiques données et au moment respectif.

1. Par rapport aux sujets normaux, chez les déficients de vue on trouve plus de sourcils rapprochés et moins indépendants, fentes palpébrales plus larges, sulcus orbitaire et globes oculaires plus profonds, iris avec une zone pupillaire plus étroite, la couronne plus finement entaillée et la pigmentation claire plus fréquente. Les différences sexuelles morphologiques et pigmentaires sont présentes davantage chez les sujets normaux. Chez les déficients, le dimorphisme se trouve seulement au niveau des sourcils et de la couronne de l'iris.
2. En ce qui concerne une possible influence de la déficience visuelle sur les phénotypes morphologique de l'œil, on constate, sur la totalité du lot, qu'à mesure que la déficience est plus grave, le taux de chargement de la paupière supérieure est plus réduit et la pigmentation de l'iris devient plus foncé.

La déficience visuelle totale s'associe avec des sourcils indépendants, fentes étroites, sulcus orbitaire plus profond et fortement en arrière, paupières déchargées et/ou sans plis, globe oculaire plus proéminent, iris avec une zone interne plus large, couronne indistincte et fine et pigmentation plus claire.

Excepté quelques ressemblances avec les aveugles, on peut associer la déficience unilatérale avec des sourcils plus fréquemment rapprochés, paupières beaucoup chargées, pigmentation de l'iris plus foncée.

En tout cas, la recherche de la morphologie de l'œil associée avec les déficiences de vue, plus élargie et, méthodologiquement, plus raffinée, peut constituer un domaine théorique et pratique important de l'anthropologie biomédicale.

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# LA RÉPARTITION DES GROUPES SANGUINS DU SYSTÈME 0AB ET DES FACTEURS HÉRÉDITAIRES CHEZ LA POPULATION ROUMAINE

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**0AB Blood Group Distribution and Associated Hereditary Factors in the Romanian Population.** The paper discusses OAB blood group distribution and r.p.q hereditary factor issues. It is part of a wider research on serological aspects relevant to evolution. New data on the frequency of these characteristics in the present population were compared to results reported half a century ago or later by M.Mihăilescu, 1958; Maria Tibera-Dumitru, 1963; Olga Necrasov, 1967; Vl. Apăteanu *et al.*, 1973. Variability may be shown to lack statistic significance. However, frequencies show greater variability between historical provinces or counties. At a national level, figures tend to keep stable throughout the time interval. Based on these results, the profile of Romanian population may be more accurately defined as against other European populations.

**Key words:** 0AB blood groups, r.p.q. hereditary factors.

Des études concernant la répartition des groupes sanguins du système 0AB et des facteurs héréditaires r, p, q chez population roumaine ont été entreprises sur des échantillons représentatifs par des chercheurs, comme M.Mihăilescu (1958), Maria Tibera-Dumitru (1963), Olga Necrasov (1967), Vl. Apăteanu et les collaborateurs (1973). Nous ajoutons à ces données celles obtenues par nous:

Année	N	0 (%)	A (%)	B (%)	AB (%)	r	p	q	Indice biochimique
2009	131066	33,39	42,74	16,63	7,24	0,579	0,293	0,127	2,09
1973	1004870	32,68	43,15	16,50	7,67	0,571	0,299	0,130	2,10
1967	175337	33,63	41,93	16,83	7,62	0,579	0,289	0,130	2,02
1963	180000	33,45	42,21	16,67	7,37	0,578	0,292	0,130	2,06
1958	101601	32,30	41,70	17,60	7,50	0,568	0,292	0,139	1,97

En comparant les données de ci-dessus il résulte que:

– les fréquences obtenues sur la population roumaine, mentionnées en divers travaux synthétiques 1958–1973, s’approchent beaucoup de données actuelles;

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– la fréquence phénotypique indique sur le premier lieu le groupe A, avec un poids de 41,70% à 43,15%, puis le groupe 0, avec des valeurs qui oscillent entre 32,30% et 33,63%, puis le groupe B, ayant des chiffres compris entre 16,50% et 17,60% et sur le dernier lieu le groupe AB avec des moyennes très proches comprises entre 7,24% et 7,67%;

– conformément à la répartition des facteurs héréditaires, le facteur r détient les valeurs les plus augmentées qui oscillent, après les auteurs, entre 0,568 et 0,579, suivi par le facteur p qui varie entre 0,289 et 0,299 et, finalement, le facteur q, avec des valeurs comprises entre 0,127 et 0,139;

– l'indice biochimique de Hirsfeld est un peu plus haut de deux unités, en oscillant généralement entre 2,02 et 2,10, excepté l'indice calculé en 1958, celui-ci étant de 1,97.

La fréquence de phénotypes du système 0AB et la valeur des facteurs héréditaires, dans les provinces historiques du pays sont présentées dans le Tableau 1 et Fig. 1.

En schématisant ces données on obtient les suivantes limites de variabilité pour les phénotypes:

Groupe 0	– min.:	29,15%	Maramureș	Groupe A	– min.:	37,08%	Dobroudja
	– max.:	36,61%	Olténie		– max.:	48,36%	Maramureș
	– moyenne:	33,39%			– moyenne:	42,74%	
Groupe B	– min.:	15,42%	Banat	Groupe AB	– min.:	6,04%	Olténie
	– max.:	18,86%	Dobroudja		– max.:	8,11%	Moldavie
	– moyenne:	16,63%			– moyenne:	7,24%	

Les limites de variabilité des facteurs héréditaires r, p, q, selon la province historique, sont les suivantes:

Facteur r	– min.:	0,545	Maramureș	Facteur p	– min.:	0,256	Dobroudja
	– max.:	0,608	Olténie		– max.:	0,333	Maramureș
	– moyenne:	0,579			– moyenne:	0,293	

Facteur q	– min.:	0,114	Banat
	– max.:	0,142	Dobroudja
	– moyenne:	0,127	

Suite à l'analyse des données inscrites dans le Tableau 1 on constate que toutes les provinces historiques présentent les mêmes caractéristiques que la population de tout le pays, l'ordre du poids des phénotypes étant  $A > 0 > B > AB$  et celui des facteurs héréditaires  $r > p > q$ .

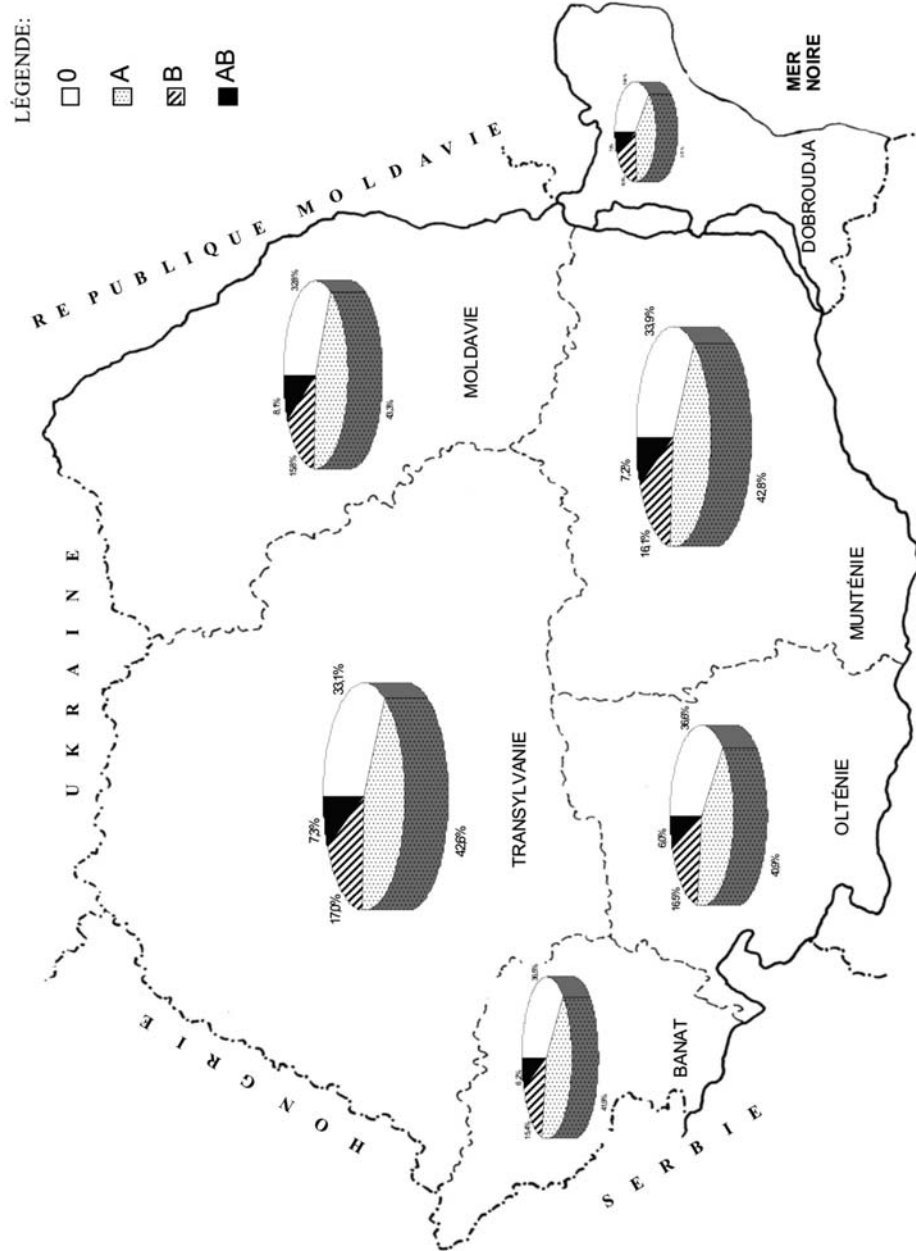


Fig. 1 – Fréquence des groupes sanguins du système 0AB dans les provinces historiques de la Roumanie.

La fréquence des phénotypes et les valeurs des facteurs héréditaires dans les provinces historiques sont très proches de celles enregistrées au niveau du pays entier, en variant entre des limites assez restreintes:

%	%	%	%
0: 32 – 36;	A: 40 – 44;	B: 15 – 17;	AB: 6 – 8
r: 0,54 – 0,60;	p: 0,27 – 0,30;	q: 0,11 – 0,14;	

L'indice biochimique oscille aussi entre des limites similaires (2,06–2,45), à exception de Dobroudja avec un indice biochimique de 1,69.

Le Tableau 1 et la Fig. 1 permettent de saisir la distribution des groupes sanguins du système OAB et celle des facteurs héréditaires r, p, q dans les provinces historiques.

**Groupe A.** Ce groupe a la plus grande fréquence en Maramureș (48,36%) et puis, à une certaine distance, dans les trois grandes provinces historiques Moldavie (43,25%), Munténie (42,79%) et Transylvanie (42,64%). Une proportion en quelque sorte plus basse est trouvée pour ce groupe en Banat (41,92%), Olténie (40,89%) et Dobroudja (37,08%). Le facteur p suit le même tracé descendant. Ce facteur enregistre un maximum en Maramureș (0,3337) et un minimum en Dobroudja (0,2561). La moyenne par pays du groupe A est de 42,74 % et la plus approchée province par rapport à cette valeur c'est Munténie, avec une fréquence de 42,79% (Tableau 1).

**Groupe 0.** La situation est inverse en ce qui concerne le groupe 0, où nous trouvons les plus augmentées fréquences en Olténie (36,61%), Banat (36,46%) et Dobroudja (36,44%). À une distance environ de 3–4% suivent les trois provinces historiques: Munténie (33,91%), Transylvanie (33,11%) et Moldavie (32,81%). Sur la dernière place se situe Maramureș (29,15%). La même échelle descendante, comme celle trouvée chez le groupe 0, est caractéristique pour le facteur r. Les valeurs extrêmes enregistrées par ce facteur sont de 0,6082 en Olténie et 0,5454 en Maramureș. La fréquence moyenne du groupe 0 sur le pays est de 33,39% et la Transylvanie est la plus approchée de cette valeur, avec une distribution de 33,11% (Tableau 1).

**Groupe B.** Le plus élevé poids du groupe B se trouve en Dobroudja (18,86%) et Transylvanie (17,00%) après que les proportions de ce groupe décroissent en Olténie (16,46%) et Munténie (16,14%) et puis par la suite en Moldavie (15,82%), Maramureș (15,67%) et Banat (15,42%). Le facteur q s'inscrit sur la même ligne descendante des valeurs, similaire au cas du groupe B, ce facteur inscrivant en Dobroudja une valeur maxime (0,1424) et en Banat une valeur minime (0,1148).

La moyenne du groupe B sur le pays est 16,63%, par rapport à laquelle l'Olténie s'approche davantage, avec une moyenne sur la province de 16,46% (Tableau 1).

Groupe AB. Ce groupe, le moins répandu, apparaît un peu plus fréquemment dans les trois grandes provinces historiques: Moldavie (8,11%), Transylvanie (7,25%) et Munténie (7,16%) auxquelles s'ajoute aussi Dobroudja (7,63%). Un pourcentage faiblement inférieur s'enregistre en Maramureș (6,81%), Banat (6,20%) et Olténie (6,04%). La fréquence moyenne du groupe AB par pays est 7,24% et la plus approchée de cette moyenne est Transylvanie, avec une répartition moyenne par province de 7,25% (Tableau 1).

Tableau 1

Répartition des groupes sanguins du système OAB (%) et des leurs facteurs héréditaires dans les provinces de la Roumanie

Province	No. sujets	O	A	B	AB	r	p	q	Ind. biochimique
Transylvanie	76935	25473 33,11	32806 42,64	13072 17,00	5584 7,25	0,5776	0,2925	0,1299	2,06
Munténie	30813	10449 33,91	13184 42,79	4973 16,14	2207 7,16	0,5831	0,2926	0,1243	2,15
Moldavie	12341	4049 32,81	5338 43,25	1953 15,82	1001 8,11	0,5728	0,3010	0,1262	2,15
Olténie	5742	2120 36,61	2348 40,89	945 16,46	347 6,04	0,6082	0,2720	0,1198	2,08
Maramureș	2936	856 29,15	1420 48,36	460 15,67	200 6,81	0,5454	0,3337	0,1208	2,45
Banat	1355	494 36,46	568 41,92	209 15,42	84 6,20	0,6052	0,2799	0,1148	2,23
Dobroudja	944	344 36,44	350 37,08	178 18,86	72 7,63	0,6015	0,2561	0,1424	1,69
ROUMANIE	131066	43767 33,39	56014 42,74	21790 16,63	9495 7,24	0,5794	0,2930	0,1276	2,09

La fréquence des groupes sanguins du système OAB et les valeurs des facteurs héréditaires dans les départements du pays sont représentées dans le Tableau 2.



Tableau 2  
Les groupes sanguins du système OAB<sup>2</sup>

Province	Département /Zone	No. sujets	0%	A%	B%	AB%	r	p	q	Ind. biochimique
Transylvanie	Arad	4707	33,03	42,43	16,70	7,84	0,5741	0,2947	0,1312	2,05
	Hunedoara	7168	34,19	42,26	16,82	6,72	0,5877	0,2864	0,1258	2,08
	Alba	2410	34,27	46,47	14,02	5,23	0,5918	0,3063	0,1018	2,68
	Sibiu	2709	38,32	40,05	16,06	5,57	0,6219	0,2631	0,1149	2,11
	Braşov	8809	35,13	42,91	15,60	6,36	0,5949	0,2882	0,1168	2,24
	Covasna	460	29,13	48,91	13,70	8,26	0,5383	0,3452	0,1165	2,60
	Harghita	1123	33,66	41,85	18,25	6,23	0,5875	0,2808	0,1316	1,96
	Mureş	9515	30,52	42,65	17,88	8,95	0,5514	0,3041	0,1445	1,92
	Cluj	8284	32,64	43,87	15,62	7,87	0,5698	0,3050	0,1252	2,21
	Sălaj	440	38,18	38,18	17,50	6,14	0,6195	0,2541	0,1263	1,88
	Bihor	5308	32,97	40,28	17,76	8,99	0,5695	0,2869	0,1436	1,84
	Satu Mare	3501	33,42	42,25	18,48	5,85	0,5878	0,2813	0,1309	1,98
	Maramureş	21627	32,38	42,88	17,79	6,95	0,5743	0,2927	0,1330	2,01
	Bistriţa Năsăud	874	33,98	39,93	17,85	8,24	0,5803	0,2796	0,1401	1,85
Munténie	Argeş	8469	35,03	43,15	15,16	6,66	0,5925	0,2916	0,1158	2,28
	Dâmboviţa	3216	34,01	42,16	16,64	7,18	0,5842	0,2885	0,1273	2,07
	Prahova	4460	33,70	42,91	16,12	7,26	0,5810	0,2943	0,1247	2,15
	Buzău	4459	34,11	42,97	16,06	6,86	0,5858	0,2921	0,1221	2,17
	Teleorman	2337	32,65	43,69	16,00	7,66	0,5714	0,3025	0,1262	2,17
	Ilfov	3974	33,42	41,54	17,44	7,60	0,5789	0,2869	0,1342	1,96
	Ialomiţa	1886	31,92	42,63	17,34	8,11	0,5652	0,2982	0,1366	1,99
	Brăila	2012	33,35	43,14	16,15	7,36	0,5780	0,2965	0,1254	2,15
Olténie	Dolj	1025	35,61	43,22	16,58	4,59	0,6076	0,2795	0,1129	2,26
	Gorj	1078	33,77	43,51	14,93	7,79	0,5779	0,3015	0,1206	2,26
	Mehedinţi	2123	38,15	40,23	15,87	5,75	0,6197	0,2654	0,1149	2,13
	Olt	680	30,88	41,18	21,18	6,74	0,5672	0,2806	0,1522	1,71
	Vâlcea	836	36,12	42,22	15,91	5,74	0,6478	0,2373	0,1148	1,93
Banat	Caraş Severin	839	36,11	41,84	16,45	5,60	0,6065	0,2760	0,1175	2,15
	Timiş	516	37,02	42,05	13,76	7,17	0,6031	0,2865	0,1104	2,35
Dobroudja	Constanţa	770	35,97	37,92	18,70	7,40	0,5989	0,2605	0,1405	1,74
	Tulcea	174	38,51	33,33	19,54	8,62	0,6117	0,2368	0,1515	1,49
Moldavie	de Nord-ouest	3154	32,27	44,23	15,60	7,89	0,5680	0,3066	0,1246	2,22
	de Nord-est	2268	31,79	41,88	18,38	7,93	0,5638	0,2931	0,1431	1,89
	Centrale submont	1789	34,04	42,95	15,14	8,55	0,5834	0,2944	0,1222	2,14
	Plateau Central	3730	31,47	44,96	15,22	8,33	0,5609	0,3150	0,1241	2,26
	de Sud-ouest	724	38,12	39,91	14,22	7,73	0,6174	0,2712	0,1113	2,17
	de Sud-est	676	37,13	40,08	15,08	7,69	0,6093	0,2734	0,1172	2,09
Maramureş	2936	29,15	48,36	15,67	6,81	0,5454	0,3337	0,1208	2,45	
ROUMANIE	131066	33,39	42,74	16,63	7,24	0,5794	0,2930	0,1276	2,09	

<sup>2</sup> Selon les données des atlas anthropologiques sur les provinces historiques de la Roumanie.

Des données exposées dans ce tableau il résulte que les limites de variabilité enregistrées par les phénotypes du système OAB sont les suivantes:

Groupe 0	– min.:	29,13%	dép.Covasna	Groupe A	– min.:	33,33%	dép.Tulcea
	– max.:	38,51%	dép.Tulcea		– max.:	48,91%	dép.Covasna
	– valeurs fréquentes:	32–36%			– valeurs fréquentes:	40–44%	
Groupe B	– min.:	13,17%	dép.Covasna	Groupe AB	– min.:	4,59%	dép.Dolj
	– max.:	18,70%	dép.Constanta		– max.:	8,99%	dép.Bihor
	– valeurs fréquentes:	15–17%			– valeurs fréquentes:	6–8%	

L'intervalle de variabilité des facteurs héréditaires r, p, q selon la répartition sur les départements montre de la sorte:

Facteur r	– min.:	0,538	dép.Covasna	Facteur p	– min.:	0,236	dép.Tulcea
	– max.:	0,647	dép.Vâlcea		– max.:	0,345	dép.Covasna
	– valeurs fréquentes:	0,54–0,61			– valeurs fréquentes:	0,27–0,30	

Facteur q	– min.:	0,101	dép.Alba
	– max.:	0,152	dép.Olt
	– valeurs fréquentes:	0,11–0,14	

La répartition par départements des groupes sanguins et leurs facteurs héréditaires se présente ainsi:

**Groupe 0.** En corroborant les données du Tableau 2 avec celles présentées dans la Fig. 2 on constate que le groupe 0 comme aussi les facteurs héréditaires r présentent des valeurs plus basses dans les départements du Nord, de l'Est, de l'Ouest, du Sud de la Roumanie et en quelques départements du centre du pays (30,00–33,50%, respectivement 0,54–0,57), tandis que dans la majorité des départements du centre et aussi ceux de Banat, Dobroudja et le Sud-Ouest de l'Olténie on rencontre des fréquences et des valeurs plus hautes (33,51–36,00, respectivement 0,58–0,61).

**Groupe A.** Le même Tableau 2 et le Fig. 3 permet de saisir que le groupe A et les facteurs héréditaires p enregistrent des fréquences et valeurs plus élevées (42,51–44,00%, respectivement 0,29–0,31) à raison de six départements de Moldavie, Munténie et Transylvanie et en Olténie seulement deux. Dans les autres départements situées spécialement à l'Ouest du pays (Crişana, Banat), au Sud de l'Olténie et de Moldavie, en certains départements du centre du pays et aussi en Dobroudja tant la fréquence du groupe A que tant la valeur du facteur héréditaire p sont plus réduites (40,00–42,50%, respectivement 0,26–0,28).

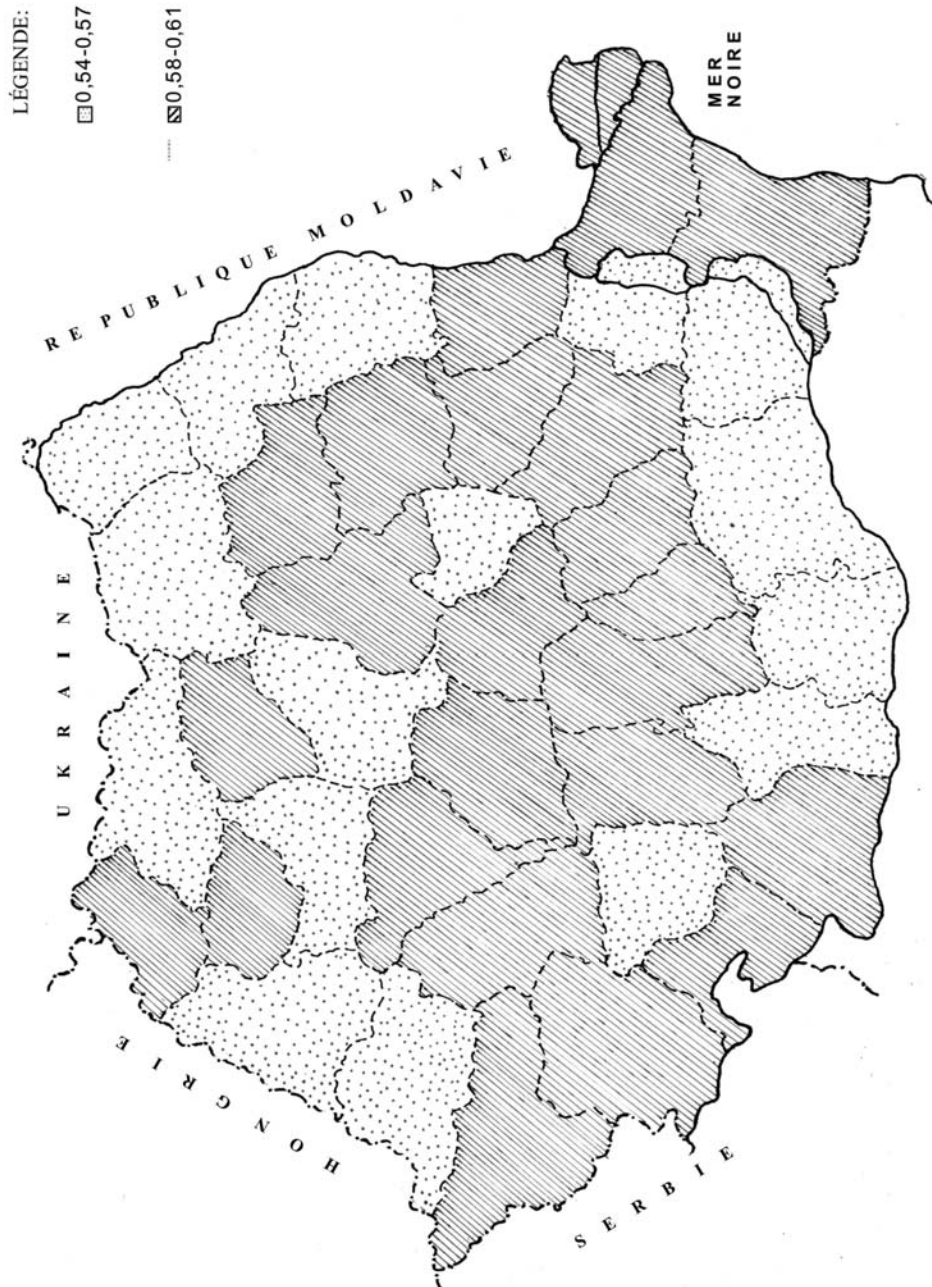
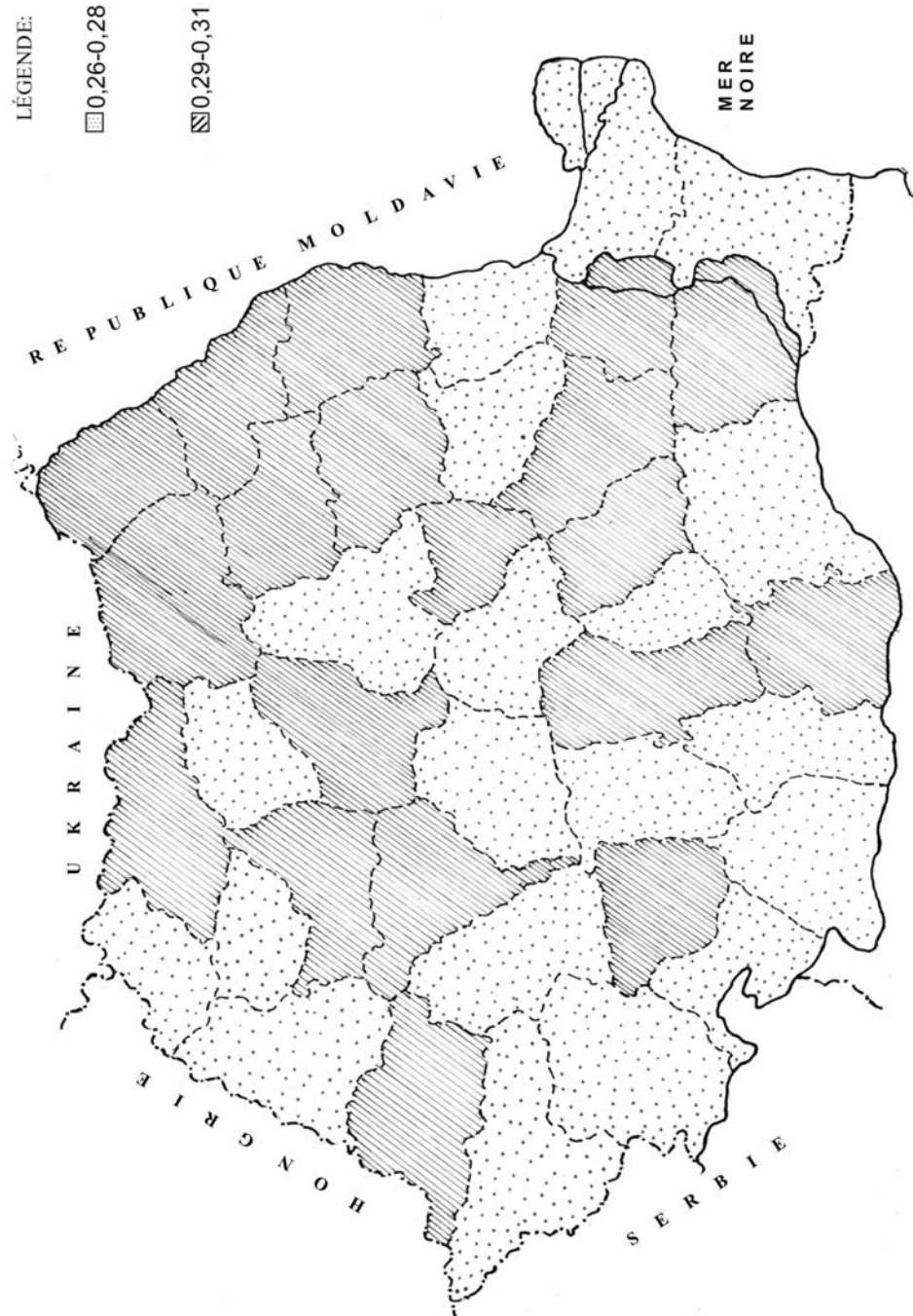


Fig. 2 – Répartition du facteur r en Roumanie.

Fig. 3 – Répartition du facteur **p** en Roumanie.

Groupe B. Ce groupe est présent dans les départements de l'Ouest, Nord et l'Est de la Transylvanie, dans ceux du Sud de l'Olténie et Munténie et aussi en Dobroudja (16,6–18,0%). Dans les départements de Banat, Moldavie, le Sud de la Transylvanie, dans ceux de la moitié nordique de l'Olténie et de Munténie la fréquence pour ce groupe est plus faible (13–16,5%). La valeur du facteur héréditaire  $q$  est plus élevée (0,1251–0,15) dans la même zone où le groupe B enregistre des fréquences plus élevées et celle-ci est plus basse (0,10–0,125) où le groupe B présente des fréquences plus basses.

Groupe AB. On remarque des fréquences élevée du groupe AB (5,00–7,50%) dans les départements du Nord et du Sud de la Transylvanie, en Banat (les deux départements), Olténie par la majorité des départements, dans la moitié nordique de la Munténie et dans un département de Dobroudja. En échange, tous les départements de la Moldavie, ceux du Sud de la Munténie, du centre et de l'Ouest de la Transylvanie et un département de l'Olténie et un autre de Dobroudja enregistre des fréquences plus élevées (7,51–9,00%) (Tableau 2).

L'indice biochimique est plus faiblement représenté dans les départements de Nord-Est et Nord-Ouest de la Transylvanie, dans un département de Nord-Est de la Moldavie, en ceux-là de l'Est de l'Olténie, Sud de la Munténie et en Dobroudja avec des valeurs comprises entre 1,80 et 2,00. Dans les autres départements se manifeste une tendance d'augmentation de sa valeur, augmentation que nous avons répartisée en deux niveaux: 2,01–2,20 et 2,21–2,40 (Tableau 2).

Si nous nous référons à la répartition par pays des groupes sanguins, en représentant les fréquences des groupes A et B sur un axe qui part de l'Ouest de l'Europe vers le Sud-Est de l'Asie, on observera que le groupe A décroît sur cette direction (ouest→est), tandis que le groupe B se manifeste inversement – il augmente sa fréquence à mesure que nous avançons de l'Ouest de l'Europe vers le Sud-Est de l'Asie (P.Râmneanțu). En conformité avec ce schéma et aussi avec les données présentées comparativement par M.Mihăilescu (1958), la population roumaine est incluse parmi les populations balkaniques. En base de données présentées, nous pouvons affirmer que par les caractéristiques du système sanguin OAB, la Roumanie appartient au type européen et se situe au voisinage de certains populations de l'Europe Centrale et de Sud-Est, caractérisées, en général, par la même séquence de la fréquence des phénotypes 0, A, B, AB et des facteurs héréditaires  $r$ ,  $p$ ,  $q$ .

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# CHRONIC DISEASE AS PSYCHOSOCIAL DISRUPTION: THE CASE OF END-STAGE KIDNEY FAILURE IN CYPRUS

COSTAS S. CONSTANTINOU<sup>1</sup>

This article presents the findings of an ethnographic study of haemodialysis among Greek-Cypriot patients on the island of Cyprus. This article reveals that haemodialysis is experienced differently by people with different social background. The social determinants of perceiving haemodialysis in positive or negative terms are: age, gender, marital and job status. The younger people without families, the younger people who are married with small children, men and those with well paid jobs before the advent of end-stage failure are more likely to experience haemodialysis in negative terms and characterise it as a torture. In general, the greater one's sociality is before end-stage kidney disease, the greater the loss experienced. Conclusively, haemodialysis takes the form of a rite of passage transforming the individual from socially active to socially restricted.

**Key words:** Haemodialysis; organ transplantation, medical sociology/anthropology, Cyprus.

## INTRODUCTION

Organ donation and transplantation are important issues for policymakers in many areas of the world to study and comprehend, and this field has been researched by social sciences in countries such as the United States, Japan, Brazil, Mexico, Germany, and Greece (Sharp 2006; Lock 2002; Joralemon 1995; Schepes-Hughes 2002; Crowley-Matoka 2005; Hogle 1999; Papagaroufali 2002; Fox and Swazey 1992; 1978). The literature points towards an in-depth exploration of the medical treatment of organ failure, and on these grounds this article aims to focus exclusively on the social and procedural nature of the treatment of kidney failure – haemodialysis<sup>2</sup> – as perceived and experienced by Greek-Cypriots on the island of Cyprus. Before presenting the social aspect of haemodialysis let me briefly describe how Greek-Cypriots understand disease, illness and suffering.

Greek-Cypriots are socialized with little knowledge about chronic diseases and, at the onset of a serious disease, they resort to modern biomedicine and to

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<sup>2</sup> In this article I focus exclusively on haemodialysis because it is widely used in Cyprus, while very few patients are under peritoneal dialysis programmes.

religion for making sense of their new self. On these grounds, they understand their health condition and diseases in general mechanistically or as the result of God's will, the devil's act or personal wrongdoing. In case modern biomedicine cannot offer solutions Greek-Cypriots rely heavily on the Christian religion to deal with such unexpected bodily and psychosocial disruption. Suffering, for Greek-Cypriots, does not merely derive from biological pain but also from circumstances under which they cannot attain cultural goals such as having a family, attaining education, getting a well-paid job and so on. In Carrither's (1985) terms, when they cannot achieve the goals that will make them socially acceptable and successful, Greek-Cypriots experience feelings of suffering, which refer to, based on Strandmark's (2004:140) definition, "feelings of alienation, shame and guilt because the individual is dissatisfied with her or himself". Having said this, Greek-Cypriots understand normality and sociality as synonyms because a person who is socially replenished is interpreted as normal and a person who is understood to be normal underpins a successful social life. The circumstances that might be conducive to feelings of suffering or abnormality are unexpected serious psychosocial disruptions such as the end-stage kidney disease.

End-stage kidney disease refers to the permanent damage of both kidneys to the extent that blood cannot be cleansed of waste. Since this task cannot be executed biologically, it has to be performed mechanically to prevent the death of patients. Thereafter, patients must be connected to an artificial kidney – dialysis treatment – to enable their blood to be cleansed and maintain their life. Dialysis treatment includes either peritoneal dialysis, which is a process of cleansing the blood every six hours on a daily basis, or haemodialysis, which takes four hours and must be performed three times per week. There is no cure to end-stage kidney disease, although kidney transplantation, either from living or brain-dead donors, is medically considered a better way of managing the disease. The several discourses developed on the island by health institutions, transplant surgeons and patients groups present kidney transplantation as the return to normality and sociality and thus haemodialysis as a tolerable temporary management and life maintenance until a kidney is available. Before scrutinizing the sociality of haemodialysis let me first have a close look at the research settings and research methods used.

#### **RESEARCH SETTINGS AND RESEARCH METHODS**

This article presents the findings of an ethnographic study of haemodialysis among Greek-Cypriot dialysis patients on the island of Cyprus. Cyprus is situated in the eastern Mediterranean Sea. It has a population of 700,000 people living in the south (mainly of Greek background), and 200,000 in the north (mainly of Turkish background). This division is the result of a long-standing conflict between the two main communities on the island which came to a head in 1974. The southern area of Cyprus is mainly inhabited, on a permanent basis, by Greek-



Cypriots including people from the Latin, Maronite and Armenian communities, with thousands of migrants from Asia, Africa and Eastern Europe and a few Turkish-Cypriots. I focused exclusively on Greek-Cypriots in order to keep my findings and my anthropological analysis bounded to specific cultural, national and religious context.

In Cyprus, 700 transplantations have been performed since 1986 when the Cyprus transplant centre was founded, about 400 are under dialysis programs and 100 are on a waiting list for kidney transplantation. For the purposes of this study, I talked with more than one hundred patients in addition to their relatives in twenty cases. I initially contacted a small number of dialysis patients through patient groups and then I relied heavily on the snowball method. My sample was representative, not in the sense of a random selection, but in the sense of selecting people with diverse social backgrounds and characteristics (e.g. age, gender, education or type of kidney disease) in order to identify not only any possible patterns that characterise the experience of kidney disease but also to recognise any differences across individuals. Fifty conversations with patients (20 recorded and 30 hand-written) were transcribed to facilitate data organization and analysis. The fifty transcribed interviews were with 23 females and 27 males with ages ranging from 19 to 82 years and with socioeconomic status from elementary and high school working class to university educated middle and upper class. The interviews were conducted from September 2006 to May 2008 wherever informants preferred and took from forty-five minutes to one hour. All interviewees signed an informed consent form, while their identity was obscured for purposes of analysis.

## DISCUSSION

Patients experience haemodialysis as psychosocially dislocating with many impacts on their social life. As I analyse below, haemodialysis affects nutrition, one's body and self image, work and the family, while its stigmatising mantle may result in feelings of self devaluation.

### FOOD RESTRICTIONS AS SOCIAL DISRUPTION

My informants stressed the changes they had to adopt in their diet due to the end-stage kidney disease and expressed their disdain for not being allowed to consume what they wished. For instance Fotis said:

First and foremost, I cannot eat what I want. I want to drink water and I cannot because I have to be careful with liquid intake and the weight I gain [between] each haemodialysis. I cannot eat fruit. I have to boil vegetables and beans two or three times [before consumption] so that potassium is removed.

Though both men and women talked about the importance of food and liquid intake, it was men that were more likely to emphasise food consumption. Restrictions in food consumption are important for two main reasons. First, it is interwoven with biological weakness, which is derived from the fact that the body is not properly cleansing itself of toxins. On this basis, food is viewed as an enemy in the sense that if dialysis patients consume a lot of liquid their medical condition may worsen and make haemodialysis more difficult and less efficient<sup>3</sup>. Second, eating is not simply for nutrition but it constructs or verifies social relations (Beardsworth and Keil 1997; Mennel *et al.* 1992). For example, Fotis said with a scornful expression on his face that when he goes to restaurants and coffee shops he cannot consume some of the things he likes while others can. The coffee shop, in a Greek context (Loizos and Papataxiarchis 1991), is a male place where masculine identity is tested and grounded. Bodily integrity is thus very important for men, and experiences of bodily dependence produce feelings of inferiority in comparison with other men. The same applies to restaurants in the sense that they too are places where not only bodily integrity but also personal control over one's body and food consumption become a masculine matter. Elias, for instance, clearly stated: "When men have transplantation they can go to their restaurants as before." Though this phrase may sound bizarre in the English language because the words "their restaurants" signifies ownership, the utterance of such phrases in the Cypriot dialect means having control over one's wishes, needs and body. Going to restaurants for a Cypriot *meze*<sup>4</sup> is not simply an act of nutrition, but more importantly it dictates the boundaries of male identity (Andilios 1996). Since kidney disease and haemodialysis do not allow men to reaffirm their masculine role in such a context both are perceived as having negative consequences for the male self. Hence, the person is dependent on something invisible and intangible – prohibitions and self compliance. The person should not violate medical advice regarding food and liquid consumption in order not to aggravate their condition but should also exercise self-control. The self, in this case, is in conflict with the body which wants to consume food (see also Scheper-Hughes and Lock 1987).

#### HAEMODIALYSIS AS BEING HALF-HUMAN

The other consequence of haemodialysis rests with the process itself – the process of cleansing one's blood. Marinos, a 50-year old man with kidney failure, has been receiving haemodialysis since 2002. When he first experienced haemodialysis treatment, he described it as abhorrent and decried it as an alienating practice by saying:

You feel that you are finished, that you are incapable of living without artificial support. Being connected with a machine that filters your blood for four hours is not something simple. It is something very abhorrent.

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<sup>3</sup> The more weight gained the less efficient is the haemodialysis treatment.

<sup>4</sup> Small tidbits of food.

Marinos considered himself *finished* as a self and a social agent rather than as a body. Along similar lines, other informants have stressed the enclosure of the social self. Sofi and Costakis maintained that haemodialysis is akin to a prison because they cannot do anything they want, while Yiannis' view of his first experience of haemodialysis was: "I felt as [though] the sky fell onto me".

My informants summarised their experience with haemodialysis as "I felt that I was a half-human". The reference to feeling as a half being directly relates to sociality, personhood and personal achievements (see also Carrithers 1985; Alexander 2001). To analyse this: these informants are afraid of not being able to support one's family and thus reaffirms – in this specific case – one's masculine or feminine identity. The home, for both men and women, does not only refer to infrastructure but more importantly to the social networks that are attached to it (Loizos 1981). It is of interest to note that Constantinou (2005) found that male refugees in the Tahtakallas area in Cyprus focused on the loss of their houses as economic estates whereas the women viewed them as interactive frameworks. Along similar lines, Loizos (1981) argued that the impact of dislocation was greater on those Greek-Cypriot refugees who were 35–45 years old in 1974, had small children, had already set up their home, and were established as good parents within the context of the village community. It seems here that the impact of bodily disruption due to chronic illness is greater on those people who have built families and homes and feel that they may not fulfil their future social roles. Furthermore, a home is a place full of memories (Hayden 1996) that have been accumulated via discharging masculine and feminine roles, but a dialyser is conceptualised as something which produces negative memories, and the self falls short of anticipated role norms. Put differently, haemodialysis is an imagined and empirical context in which a dialyser is understood to be cutting one's social life into two main pieces – the body which is largely supported artificially and the self which disappears, or is placed on hold, until a graft is available for transplantation so that the person can become whole again.

#### THE IMPACT ON THE FAMILY AND FEELINGS OF DEPENDENCE

The family personifies a defining context and a place of belonging for many Greek-Cypriots, and fulfilling the social expectations of having children is what contributes to constructing individual personhood (Loizos 1975; 1978). It is, however, equilibrium within the family that helps people act as successful members outside (Sullivan 2000). Thus, haemodialysis is a disrupting experience which works as a conduit for channelling disruption into the family, redefining and rearranging roles and conditions. The direct consequences of haemodialysis initially impacts on both the family's financial resources and domestic organisation, and the former appeared to be more important to men rather than women. Men utilised discourses that related to losing their jobs whereas women were more concerned about not being able to take care of the house and their children and were even anxious about it before the

diagnosis when they were in the labour force. Katerina, Yiorgos' wife, argued: "It was very difficult for Yiorgos not to work on a full-time basis and to bring less money into the household. It is different when a woman is not doing it". This indicates that it is not only the affected male who feels that he is not contributing to the household but also other people in his social environment. In Cyprus, a man is more likely to be expected to work and provide for his family financially than a woman (Argyrou 1996). The public saying that historically describes the different relationship that men and women have with the household is that men are described as "the pillar of the house". This signifies that a man is understood to uphold the substructure of the household, and if damaged, the house is in danger of collapsing. Feelings of self devaluation are further reinforced when the wife takes the role of the provider, as Fotis indicates: "At the beginning I felt useless because I could not work and my wife had to take this load".

Of course, kidney disease and haemodialysis have other consequences that may culminate in the experience of negative feelings. Specifically, many dialysis patients cannot drive alone to the hospital because their blood pressure is very low immediately after treatment. Following haemodialysis patients feel weak and dizzy, and driving back home would therefore be a dangerous choice. Hence they usually rely on relatives and spouses for transportation which increases feelings of dependency. This does not always happen as Mariana, the wife of Fotis, says: "Each time Fotis goes to town for haemodialysis I worry much. He often has very low blood pressure when haemodialysis finishes and it is very dangerous for him to drive back to the village". Unsurprisingly, Marinos did have a car accident following one treatment, because he was weak and dizzy, which required hospital treatment. Finally, the fact that some patients need to travel by bus three times a week has a direct effect on their family's financial resources and leads to the patient's dependency on transportation in order to maintain his or her life. Within such a reorganised family environment, conflicts may be observed. Kyriakos and Sotia described how their closest friends and family might not understand the biopsychological consequences of kidney disease and quarrel with them, while Marios fears accusations by his wife of transmitting a hereditary disease to their children. The reason for attributing blame to the other lies in the expectation of a disrupted social life. It prepares the ground for conflict among spouses, as is the case with Nicos, whose son was born with kidney disease. Nicos had argued intensely with his wife about the possibility of having an abortion as the disease had been diagnosed during pregnancy, and this conflict had brought the couple close to divorce.

### THE IMPORTANCE OF WORK

The half-human reference, presented earlier, has been engendered by a set of frameworks outside the family and home such as the workplace and travelling. The workplace may act as both a disrupting as well as a constructing place depending on its social dynamism. Moreover, a person who is under haemodialysis treatment

is socially marked and viewed as an excused employee who must leave the workplace from time to time in order to undergo haemodialysis and he or she enjoys specific help that other employees do not. As some of my informants have indicated, this might precipitate feelings of hostility among other staff but it might also penetrate a patient's personal and social space permeating any boundaries of anonymity and autonomy. The social stigma is even more detectable when a person encounters the danger of being dismissed from work due to renal disease. This was the case with Anthos, who was employed in a high position in a foreign organization located in Cyprus. When the organization's physician reviewed Anthos' routine blood tests and realised that this employee was about to face the onset of kidney disease, he was given notice without immediate compensation. This devastated Anthos psychologically, making him feel an unimportant and devalued human being. He stated that he eventually managed to cope with it, due to his family's financial and psychosocial support.

On the other side of the spectrum, a work place is constructing, stimulating and affirming. For example, Marinós explained: "I am the only person who is under haemodialysis and works on a full time basis". On similar lines, Vasiliki proudly claimed: "I don't think that you will find any other transplanted person who works [as] many hours as I do". This self proclaimed uniqueness is a coping mechanism for managing stigma and bodily and social disruption and portrays a case where generated capital is drawn out in order to revalue one's image. Work has been the cornerstone that sustained and underpinned self-respect, both reinstating and strengthening one's sense of importance again. Sotia asserted: "When I went back to work, I felt that I was reborn – I thank my boss for giving me this opportunity". Volunteer work is another framework which provides increased self esteem. For instance, Makis is not employed but he spends a great deal of time as a janitor at the building block where he lives and also takes care of a garden he owns in a village outside Nicosia. Working (paid or unpaid), implies physically working the body, which has been viewed and experienced as already disrupted. A working body, therefore, becomes creative by occupying space and thinking, while the self becomes closer to the disrupted body by gaining control over it (Boddy 1995). Having control over one's body is allied to having independence which gives the self respectability within a social surrounding. By being interactive in a social surrounding, one's self image is enhanced and self-confidence is repossessed (Munn, 2000) – a person is viewed as "healthy" (Charmaz 2000).

### THE SOCIAL DIFFERENTIALS

Apart from the intra-family social relations, which are reformed due to kidney disease and haemodialysis there are other associative factors which make the loss greater. Here I shall turn to the social differentials of the consequences of kidney disease. My data indicates that men, younger people, and people with well-paid jobs appear to have been influenced more negatively than anyone else. The

explanation as to why this happens lies in the conviction that these groups had more to lose. Firstly, as already discussed, men lost their sense of masculine identity, their financial source, and very often their sexual potency. Katerina said that when Yiorgos was under haemodialysis treatment: “We had sex once a month if we were lucky. I thought that he did not find me attractive any more”. Similarly, Yiannis explained that sexual activity drops to zero and a man cannot fulfil his conjugal obligations. Kidney disease is more likely to affect male rather than female sexual activity because the male sexual and urologic systems are interconnected (Toorians 1997). Secondly, younger people in their early twenties and people between thirty and forty years of age who have established a household and have small children are more likely to view kidney disease and haemodialysis as a devastating experience. Young people in their prime have strong expectations about the future of the self and dream of their lives, while younger married people place considerable emphasis on fulfilling their roles of husband/wife and father/mother. Hence, the loss is greater in both these cases than in a case involving an older person with no dependants. Thirdly, people employed in well-paid jobs before the diagnosis of kidney disease and who were afraid of being unable to carry on with their work expressed more negative attitudes toward their illness experience. For instance, Elias said: “I used to work for the military bases and soldiers saluted me. But look at me now, what can I do?” I would like to clarify here that I am not arguing that my working-class informants did not express negative attitudes but that the phrases they used carried more moderate connotations.

My argument about the social differentials appears to accord with that of Loizos (1981), who observed that forced dislocation had a greater impact on richer families because they lost more. Having said this, my conclusion here, aligning with Loizos’ and Constantinou’s (2007) study on refugees’ health, indicates that the more accumulated the social capital, or the greater the expectation that social capital will be accumulated, the greater the loss.

#### HAEMODIALYSIS AS STIGMATISING

Haemodialysis may be stigmatising. Before discussing a couple of cases which demonstrate this, it would be useful first to look at the issue of stigma and stigmatisation. Stigma has been defined differently by various scholars. For example, Goffman (1984) argued that stigma refers to the possession of a quality that may be devalued. If others, however, are not aware of a person’s distinct mark then the person is in a state of potentially waiting to be discredited in the future, and thus may resort to strategies of preventing disclosure. Goffman continued, saying that stigma does not refer to the possession of a deficient quality by a member of a very specific group. He clarified, instead, that there are three main types of stigma attached to deficiencies of the body, personality and social behaviour, and gender, religion and ethnicity. In other words, when people deviate from the dominant rules of behaviour they are likely to be stigmatised by other

people in their social surrounding. On this basis, Jones et al. (1984) asserted that stigma is linked with the possession of a mark which may be the baseline for the owner to be excluded from a group. Elliot *et al.* (1982) moved along similar lines, clarifying that what constitutes a stigma is a deviant act, which makes other people conclude that the deviant is no longer entitled to partake of group activities. Interestingly, a new defining framework has been used by Leary and Schreindorfer (1998: 14), though it does not deviate much from the definition found in the existing literature: that is, stigma is an “interpersonal dissociation”, which occurs when the characteristics possessed by individuals are perceived as constituting the basis for being avoided and excluded. On these grounds, stigma refers to the possession of a mark that makes the owner stand out in such a way as to effect change in other people’s behaviour which is negative and rejecting.

In line with the above definitions, kidney disease and haemodialysis are considered to be stigmatising conditions largely depending on the situation and the context. A dialysis patient may be stigmatised by people who do not suffer serious health problems, but will probably not be stigmatised within the context of a haemodialysis room, where all occupants have the same problem; and where there is no other distinguishing characteristic to make them conspicuous. However, there is such a marker – age. Loukas, who received a kidney transplant in 2006, was 22 years old when he was diagnosed with end-stage renal failure and he began haemodialysis treatment two months after diagnosis. His experience of haemodialysis follows:

I did not want to have haemodialysis at the haemodialysis department. I was the youngest patient and I asked [about] having haemodialysis at the nephrology department where only one machine [is] available and I could have it [treatment] isolated in a room without anybody else in there. They did not allow me to do it.

Loukas’ uniqueness on the basis of his age gives rise to other less obvious characteristics that accord with being younger. Being younger, in the prime of life, for example, implies having physical strength, being generally fitter, having a more active social life, a greater sexual appetite, and more to look forward to in the sense of pursuing education, starting a family, and gaining independence and autonomy. All these markers of youth, however, were disrupted by kidney disease and haemodialysis, and thus Loukas’ feeling of uniqueness was even stronger. It resulted in Loukas feeling devalued as a person; refusing to do things that he enjoyed in life. This self-devaluation was further exacerbated by some nurses who tried to make sense of Loukas’ young age and condition by remarking: “Virgin Mary, you are so young. How did this happen to you?” Comments such as this by people in authority, who attended to the care of Loukas and administered the fistula procedure prior to his three-times weekly haemodialysis, succeeded in dissociating him even further from his body, social life and the disease. But Loukas’ case seems

to better tally with Goffman's account of stigma, in the sense that Loukas is not excluded from a group due to kidney disease and haemodialysis, but because he possesses a quality, youth, which is discredited and consequently he is self-devalued and self-excluded. Loukas' story is an example whereby health conditions and medical technologies are viewed as agencies in the sense that they are perceived as disrupting one's social life, distinguishing the self from machine, instead of integrating the two in such a way that the individual gains control over his or her therapy and retains autonomy.

### CONCLUSION

Conclusively, the findings of this qualitative study accord with the social sciences literature, which points that haemodialysis deteriorates patients' quality of life, while kidney transplantation is a positive turning point towards regained sociality and perceived normality (Lumsdaine *et al.*, 2005; Martino 1994; Rao 1991; Kaplan and Shaman 1980; Johnson *et al.* 1982). In addition, this qualitative study shows that feelings of suffering from haemodialysis do not merely derive from biological malfunctioning but they are also socio-culturally constructed. This happens at two levels. Firstly, individuals' personhood is disrupted by haemodialysis. Secondly, haemodialysis takes the form of a rite of passage through which the individual is transformed from socially active to socially restricted. Let me further elaborate on these two levels.

### DISRUPTED PERSONHOOD AND SUFFERING

Haemodialysis is experienced differently by people with different social background. The social determinants of perceiving haemodialysis in positive or negative terms are: age, gender, marital and job status. The younger people without families, the younger people who are married with small children, men and those with well paid jobs before the advent of end-stage renal failure are more likely to experience haemodialysis in negative terms and characterise it as a torture. In general, the greater one's social capital is before end-stage kidney disease, the greater the loss experienced. The material here directly links to the Greek-Cypriot socio-cultural context. That is, Greek-Cypriots grow up with cultural goals in mind in order to achieve full personhood (Carrithers 1985), i.e. to attain a good education, marriage, having children, securing a well-paid job, and thus to be considered successful social members of their community. Since haemodialysis disrupt this cultural process of social replenishment feelings of suffering accrue.

### HAEMODIALYSIS AS A RITE OF PASSAGE

My aim here is neither to deploy an alternative definition or conceptualization of what a ritual is, nor to discuss the variety of approaches to the concept (Bowie



2000). I would rather like to focus on the concept of rite of passage as outlined by van Gennep (1960), who defines it as a situation through which there is a transition from one state of life to another. *Vis-à-vis* van Gennep's ideas, kidney transplantation has two stages; "separation" and "transition", while the third stage "incorporation" fails to emerge.

(1) Separation: People with end-stage kidney disease are separated from the social and healthy life. This happens because the patient has to have haemodialysis three times per week for four hours each, which means that his or her social life, such as work schedule, social and family obligations and food and liquid intake, is restricted. Also, the patient has to be included in the alien space of haemodialysis unit and conform with unfamiliar rules and values. This separation is an alienating experience for patients that may be conducive to psychological problems such as depression (Elal and Krespi 1999).

(2) Transition: The transitional stage is the period during which the individual has the first dialysis treatments and has not yet been familiarized and accustomed to the new regulations and way of life. Also, it is the period in which others' behaviour changes. For instance, relatives and friends behave differently from how they behaved before the emergence of end-stage kidney disease in the sense that they may ask questions about the individual's health, the process of haemodialysis and express attitudes of uncertainty. The individual thus find one's self in a state of confusion – a state between the healthy and the unhealthy. Although over time the individual could accumulate dialysis experience, conform to and embody regulations and treatment procedures to such an extent that he or she would be incorporated in to the state of illness, the hope for a normalizing turning point prevents the third stage of incorporation from emerging. In Cyprus, the dominant transplant discourse is "transplantation means the return to normal social life". This discourse is published through newspapers, the TV news and information leaflets<sup>5</sup>. Haemodialysis is presented as a tolerable temporary treatment that equates with social death<sup>6</sup>. These discourses are also used extensively by dialysis patients who take for granted that kidney transplantation will restore their normality and they thus just hope for a graft to be available. On these grounds, dialysis patients find themselves in a long transitional period, while the stage of incorporation is kidney transplantation, which will re-incorporate them into the world of "normal" healthy people. In other words, the long transitional period and the hope for a turning point instill social restriction.

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<sup>5</sup> The campaign started in October 1986 when the first kidney transplantation was performed in Cyprus.

<sup>6</sup> Hospitals, nephrologists and transplant centres have portrayed haemodialysis temporary and restricting and as the necessary step before organ transplantation. This was part of a more systematic discourse that promotes kidney transplantation as the return to normal social life.

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# ADAPTATIONS OF A COMMUNITY: SOCIO-CULTURAL DYNAMICS IN A VILLAGE OF SOUTH INDIA

KASI ESWARAPPA<sup>1</sup>

The paper attempts to explain the adaptive practices of Sugali tribe of Andhra Pradesh, South India. In the process of adaptation, *Sugalis* experienced various social, cultural, and economic systems/influences that have altered their traditional institutions. These further provided a way to analyse and address inter-linking concepts and terms concerning traditions, which are directly or indirectly related to *Sugalis*. The influence of outside culture brought a major change in their societal set-up. Thus, we look at *Sugalis* as a community with heterogeneous characteristics, who experienced all these inter-linked and intra-linked changes in their life courses. Thus, cultural effects on them made them invent new ideas that lead to a further complicated and more marginalized and under-privileged situation.

**Key words:** *Sugali*, livelihoods, socio-cultural dynamics, adaptations, traditional institutions, cultural effect, South India.

## INTRODUCTION

Modern livelihoods studies found their intellectual inspiration in the general understanding of the lives of the poor communities as advocated by Chambers and Conway (1992). A community is defined as and usually refers to a social anthropological group in a large place sharing an environment. According to Robert Redfield's, community should consist of four key qualities: a smallness of social scale, a homogeneity of activities and states of mind of members, self-sufficiency across a broad range of needs and through time, and a consciousness of distinctiveness (Redfield 1960:4). Frankenberg (1966) suggests that it is common interest in achievable things (economic, religious or other) that gives members of a community a mutual interest in one another. For Rapport and Overing (2007: 72–73), community studies have been regarded as empirical things-in-themselves (social organisms), as functioning wholes and as things apart from other like things. This was in turn the logical basis of the community studies in anthropological tradition and is treated as bounded group of people, culturally homogeneous and resident in one locality, because this

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community would provide a laboratory for the close observations of the inter-relations and also serve as a microcosm of a bigger social picture.

Majority of the Tribal communities in India are 'marginal' and same is the case in Andhra Pradesh, and more so is the situation in reference to the *Sugali* Tribe in Anantapur District. There is no unified definition for the term 'marginal' and anthropologists in India have used the term to refer it to indigenous people life situations. The Macmillan Dictionary of Anthropology defines the term 'Marginal' or 'Marginality' as 'in its economic, political and socio-cultural dimensions is an important element in most contexts of anthropological research, and has varying dimensions which have been explored in ethnography and anthropological theory to varying extents'. Thus 'the vast majority of the populations studied by anthropologists are to a certain extent marginal ones: often doubly marginal, as in the case of ethnic minority groups existing within Third World nations which are themselves marginal to the world capitalist system'. Further, it is mentioned that 'anthropological research within Western nations also tends to focus on groups which are in some way marginal to the dominant national society, whether they are ethnic minorities or groups that are in some other way set apart from the mainstream' (Seymour-Smith 1986: 177–78).

While continuing further with Seymour-Smith discussion, interestingly, World Bank does not have the term marginal in their categorisation. Instead, the World Bank (2005) uses the term 'Indigenous People', which is used in a generic sense to refer to a distinct, vulnerable, social and cultural group. Thus, in our paper, we have used the term tribe to denote 'indigenous people', as it used elsewhere or outside India. To continue the discussion further, it is observed from the World Bank that a group that has lost 'collective attachment to geographically distinct habitats or ancestral territories in the project area' because of forced severance remains eligible for coverage under this policy. Ascertaining whether a particular group is considered as 'Indigenous People' for the purpose of this policy may require a technical judgment. Anjana Chaudhary defined the term 'Marginal Group' as 'a culture group that has relinquished some of its traditions and separate identity and partially accepted the values and ways of life of a culture it is in the process of adopting' (2000: 234).

Thus, while looking at the Indian scenario, the indigenous communities in India are overwhelmingly marginalized not only economically but also spatially, culturally, and otherwise (Siva Prasad 2009; Ilaiyah 2009; Rao 2004; Sankaran 2000; Roy Burman 1997; Beteille 1998; Singh 2003; Subba 2009; Xaxa 1999ö 2003; Srivastava 2008 & Kasi 2007c). Andhra Pradesh has a significant proportion of tribal population and is ranked fifth in the country. Number of laws promulgated by the pre- and post-British India affected the tribals adversely. These laws have threatened their livelihoods and existence. These groups, who were forest dwellers, have been denied usufruct rights over forest produce. Land reforms have not benefited them in any significant way. Hence, they remain landless and, to some extent, even homeless. The lack of education has resulted in their exploitation by

the non-tribal. Government officials have often colluded or remained apathetic to this situation.

As Bokil (2002: 163–165) rightly pointed out that the first and foremost problem that the indigenous communities in India are threatened by is earning and sustaining their livelihoods. This problem assumed alarming proportions because the traditional means of obtaining livelihoods are increasingly threatened. In the past fifty years, the access to and control over the resources has undergone radical changes. Thus, it is in this context that the demonstration of the indigenous communities to make use of the available natural resources and obtain sustainable livelihoods would bring desired results to the indigenous people and other marginal communities. It is observed and viewed from the above mentioned sources that our interest of study, *Sugali* is one of the marginal people of indigenous communities, though numerically very large compared to the other indigenous people in Andhra Pradesh, continuously faces threats from the nature because of its locational problems and also its educational and developmental backwardness. Thus, in this paper an attempt is made to explain the social structure of the *Sugalis* in relation to their livelihood patterns and changing nature of life systems with culture contact and other related developments. Before moving to explain these dynamics, the next section tries to portray the methodology followed to conduct our research among *Sugali* and their societal backgrounds. This paper is based on the data collected from Adadakulapalle (ADP) and Naginayani *Cheruvu* (NC Thanda) settlements of Ananthapur district in Andhra Pradesh during the year 2003–2004 and 2006–2007 as part of my PhD work. The present study is basically a qualitative micro-level study aimed at understanding the livelihood systems of a semi-nomadic community and trends involved in their livelihood processes. Qualitative anthropological tools and techniques<sup>2</sup> are employed in the paper to analyse and discuss the findings and observations on the adaptations of *Sugalis* in the study area.

The paper contains three parts. In the first part, I have introduced the topic by giving definitions of the terms *marginal* and *indigenous people* and their links to tribes of India in general and Andhra Pradesh in particular. I have also attempted to succinctly explain the methodology. In the second part of the paper, I presented the study of the community furthermore by giving some demographic details. Third part of the paper focuses on the socio-cultural dynamics of the community while discussing the entire range of social processes involved in a marginal/ indigenous community in search of their daily livelihoods. An attempt is made in the paper to

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<sup>2</sup> These are mainly observation (participant and non-participant type), interviews (formal and informal) using detailed checklist, key-informant interviews, case studies, focus group discussions, etc. Quantitative data with regard to demographic and economic aspects, and also other information regarding the study was collected from primary sources through detailed census schedules.

understand how the livelihood practices of *Sugali* of the two settlements are being maintained through their socio-cultural dynamics. It is observed in our study that all the socio-cultural practices of the people are based on their livelihood structure.

## A BRIEF DESCRIPTION OF THE SETTLEMENTS

### STUDY SETTING

*Rayalaseema* is one of the three major geographical regions of Andhra Pradesh State, the other two being Coastal *Andhra* and *Telangana*. The *Rayalaseema* region of Andhra Pradesh comprises four Southern districts – Kurnool, Anantapur, Kadapa and Chittoor. Anantapur District, the district chosen for the study, has an area of about 73,495 sq kms, and forms 24.46 per cent of the total area of Andhra Pradesh (Government of India, 2001).

### STUDY AREA

ADP is located at a distance of 10 km from Penukonda, the Mandal headquarters. The *Sugali* settlement comes under ADP Gram Panchayat, which is one km away from the main settlement. The NC *Thanda* settlement is located at a distance of 10 km from Somandepalle, the Mandal headquarters. The settlement comes under NC Gram Panchayat, which is two km from the NC *Thanda*.

### DEMOGRAPHIC DETAILS

ADP and NC *Thanda* settlements have 311 households and have a population of 1,439 constituting 764 males and 675 females. Out of 311 households, majority of them belong to small and marginal farmers and the rest belong to large farmers. There are 80 agricultural households in ADP *Thanda*, whereas it is 55 households in the case of NC *Thanda*. ADP is a multi-caste/tribe settlement and it has *Sugali* (Schedule Tribe), Other Backward Castes (OBCs), Other Castes (OCs), and Scheduled Castes (SCs). On the contrary, NC *Thanda* is a single tribe (*Sugali*) settlement. Other Backward Castes includes *Valmiki Boya*, *Kuruba*, *Kummari*, and Washer men (*Chakali*) communities, where as Other Castes (OCs) include *Reddy* (*Kapu*), *Vaisya*, and Muslims communities.

Understanding of castes and tribes and their inter-relationships in any Indian village or settlement is important for a better analysis of socio-economic relationships and behaviour. There are nine ethnic groups or castes in ADP settlement, viz., *Sugali*, *Madiga*, *Kuruba*, *Kummari*, *Chakali* (Washer man), *Valmiki Boya*, *Reddy/Kapu*, *Vaisya* and Muslim.

Table 1

Population distribution by sex in the settlements

Caste	Sex		Total
	Male	Female	
<i>Sugali</i> (Indigenous people)	497 (53.5)	432 (46.5)	929 (64.5)
<i>Madiga</i> (S.C.)	96 (51.6)	90 (48.4)	186 (12.9)
<i>Kuruba</i>	44 (50.6)	43 (49.4)	87 (6.04)
<i>Kummari</i>	4 (50)	4 (50)	8 (0.55)
<i>Chakali</i>	39 (52)	36 (48)	75 (5.21)
<i>Valmiki Boya</i>	17 (50)	17 (50)	34 (2.40)
<i>Reddy</i>	50 (56.8)	38 (43.2)	88 (6.11)
Muslim	13 (52)	12 (48)	25 (1.73)
<i>Vaisya</i>	4 (57)	3 (43)	7 (0.48)
Total	764 (53.1)	675 (46.9)	1439

Note: Parentheses indicate percentages. Source: Kasi 2007c

### SUGALI

*Sugali* is the numerically predominant tribe in the settlements of the study. Among 218 households, 110 households belong to *Sugali* indigenous group with a population of 929 comprising 497 males and 432 females. They are still largely employed in trading service. Over a period of time their occupations, in both settlements, have changed due to changes that have come about in local conditions and technology. Traditionally *Sugali* are petty *supari* (betel nut) traders, and were army personnel during Mughal period. During the British rule they were notified as criminal tribes, and after independence, they were de-notified. Due to their historical background and other relations, some of them are still practicing trading activities, though majority of them have now turned to either agriculture or agricultural labour in the study settlements. Now, they practice settled agriculture in both settlements. The next section of the paper directs to the socio-cultural dynamics and its related roots of the community and its relationship with livelihoods among *Sugali* community.

### SOCIAL ORGANISATION

A brief account of *Sugali* social structure and traditional institutions is presented here. An examination of these institutions is necessary in order to understand their livelihoods and the impact of developmental interventions on their socio-economic life in these two settlements.

The *Sugali* are, by and large, an endogamous community. They practice both clan and lineage exogamy. Exchange of sisters between two men from different clans is permitted. Cross-cousin and uncle-niece marriages are also permitted.



Junior sorority is allowed (Kasi 2007b: 259–275). The age at marriage is above 15 years for girls and above 18 years for boys. They practice monogamy. *Ghongri* (pendants) hanging from the plaits on both sides of the temple and ivory bangles on the fore and upper arms, and the recently adopted *thali*, are the symbols of a married woman. Bride-price is paid. Those who seek divorce have to pay a fine to the *Sugali* council, apart from returning the bride-price. Residence is generally patrilocal, though a few cases of matrilineal or uxorilineal residences are also noticed.

Family is an important social institution among the *Sugali*, which fashions the economic transactions and social relations. The patriarchal power structure regulates the consumption and utilisation of available resources within a family. The head of a family is the decision maker in regard to the livelihood pursuits of family members. The position of head of the family is inherited by the elder son in a family. Head of the family is the custodian of the observances of socio-cultural practices and rituals. He regulates the expenditure incurred in a family. The kin members play an important role in the livelihood pursuits of individuals. They act as a social resource and kin networks help in regulating and pursuing livelihoods of its members.

The *Sugali* families are either nuclear or vertically extended. The elders, parents and senior in-laws are treated with respect. There is avoidance relationship between mother-in-law and son-in-law, and between a woman and her elder brother-in-law. There is lighthearted banter in relationships between the mother's brother and his nephews and nieces as well as a man and his younger brothers-in-law and sisters-in-law. Inheritance and succession are through the male line. Property is divided among the sons.

## DISCUSSION

### SOCIO-CULTURAL AND ECONOMIC DIMENSIONS AND CHANGING ADAPTATIVE PRACTICES

There is no immense differentiation in occupational division at the two settlements, but depending on their physical strengths, *Sugali* engage in different activities. There are few tasks such as roads, construction, and quarry work where involvement of women is lesser than that of the men's. However, it has nothing to do with their cultural norms. It is completely related to their skill and physical strength, which is not a forte for women and people from Other Caste (OC) to involve in. But in case of household activities, involvement of women is more important and they feel that household work is part of their social responsibility. Sometimes, when women get tired in their work activities, they request their husbands to help them in managing the household activities. In such cases, the husbands help them and cooperate in managing the activities in a family.

### LIVELIHOOD PRACTICES OF *SUGALIS*

In ADP the majority of *Sugalis* are small and marginal farmers. The type of land available in the village is dry land and only one *Sugali* farmer has a tube (bore) well in his land as against 90 owned by the others in the village, while the rest of the *Sugali* depend upon monsoon for farming. The major crops cultivated are groundnut, *ragi* (one kind of millet) and paddy, which are the staple crops and also constitute the staple diet of the farmers and agricultural labourers.

Table 2

Livelihoods of *Sugali* households in the two settlements

Sl.No	Type of Livelihoods	Total HHs in ADP	ADP <i>Thanda</i>	NC <i>Thanda</i>
1	Wage Labourers/ Landless People	237	124	35
2	Agriculture	225	80	55
3	Govt. Employees	35	8	65
4	Petty Business/ Liquor shops	25 (9)	14 (9)	15 (2)
5	Migration	35	35	05
6	Others/ Dependents	25	10	15

Source: Kasi 2007c

In NC *Thanda*, the majority of the *Sugali* are in government jobs, from clerks in the government office to Chief Justice of High Court, followed by cultivators and wage labourers. It is pertinent to note that in case of ADP, there are only eight government employees and majority (80) of the households depend upon agriculture as their primary source of livelihood. Unlike in NC *Thanda*, in ADP, there are 35 families who regularly migrate to other areas for their livelihood. There are 45 households of *Sugali* in NC *Thanda* who have born well connections in this settlement as against only one bore well in ADP settlement. The major crops they cultivate here are paddy, *ragi*, jowar ground nut and sunflower. *Sugali* of NC *Thanda* use *ragi*, paddy and jowar as their staple diet (Kasi 2007a: 129–138).

It may be observed that the households depending on wage labour are more among *Sugali* because they consist of greater number of landless and wage labourers. Though majority of the wage labourers own small plots of land, the land is unsuitable for cultivation. It is very pertinent to note that significant number of *Sugali* of ADP *Thanda* earns their livelihood from migration to other areas like Bangalore and Mumbai. There are 35 households who depend on migration throughout the year. In NC *Thanda* there are five families who migrated to Mumbai for their livelihood. It is observed that in Mumbai they usually are involved in activities that can be called petty business, wherein they buy rice on wholesale price and sell it in the colonies on bicycle. Liquor shop business is the main source of livelihood for nine families of ADP *Thanda* in contrast to only two families in NC *Thanda*. It is significant to note that in NC *Thanda* we find that the employment is either as a teacher or as a government servant/employee.

### PRESENT LIVELIHOODS IN THE SETTLEMENTS

The livelihoods in the settlements are classified into three categories (1) farm, (2) off-farm and (3) non-farm activities. Agriculture can be categorised under the farm category. Among the *Sugali* of both the settlements, agricultural works are being regulated by men and women along with the aged people of their community. Agricultural labour and fodder collection are included in off-farm category. Men, women and children take part in agricultural labour and also are engaged in fodder collection. Construction, contract and quarry works are categorised under non-farm category. While men and women from SC, ST, and BC castes take up construction, contract and quarry work, men from SC and BC castes only take part in labour work available in and outside the settlements. The *Sugali* of both the settlements depend on wage works available in and outside of the settlements. Men from OC caste undertake contract work and recruit SC, ST, and BC men and women as contract labour. Apart from that, many *Sugali* from ADP settlement who migrate to towns in search of their livelihoods engage themselves in petty business like selling rice and vegetables in the streets and involve in *Beldar/Maestri* (masonry) work in building construction (Kasi 2008: 71–81).

### LIVELIHOODS OF WOMEN IN THE SETTLEMENTS

The ownership of land usually is by the man. Women work the land and help men to manage it. Women have control over livestock and its products. They now get credit facilities from Development of Women and Children in Rural Areas (DWCRA) and Social Education and Development Society (SEDS) self-help groups. This money is invested in agriculture or in meeting other requirements of the family. Owing to the efforts of government, NGO and other developmental initiatives, many children now go to school than earlier. Due to the DWCRA programme, women have a role in household decision-making process, are aware of cleanliness of surroundings and also contribute to construction of school building, etc. Women members also said that their husbands allow them to attend the meetings such as DWCRA, Janmabhoomi and other official meetings of the government. Whenever teacher does not come to the school, they complain to the higher officials. As a result of their participation in DWCRA, now they are able to talk with officials without any hesitation and demand benefits/programme or schemes from the officials. Women today feel more empowered. This change can be attributed to their involvement in self-help groups, government and SEDS programmes.

### TRADITIONAL INSTITUTIONS AND *SUGALI* LIVELIHOODS

Earlier they have had *Kulachara* system (Indigenous or Community Council), which was helpful in organizing their social functions. This system was

very powerful and used to regulate the social relations in solving conflicts among the community members. During the time of conflicts between *Sugali* and outsiders, they have to come to the Council to resolve the conflicts. There were instances where these conflicts occurred in the past and were amicably solved with small fine to outsiders. *Kulachara* System consists of three prominent persons from their own settlement. They are *Pujari* (priest), *Nayak* and *Karwari*. Hierarchically, *Pujari* is a more important member than the other two, as he provides the ritual services to the community in the settlements. For marriage or any other ceremonies, the hosts would give Rs. 21 – (\$0.5) as *dakshina* (fee for performing the ritual) to the *Pujari*. He presides over the rituals related to agriculture and other functions, and festivals in the settlements. The role of *Nayak*, who is the head of the Village or settlement, was to regulate the social and political activities such as divorce, social and political conflicts, petty thefts, and land disputes among the community in the settlements. Sometimes, he also used to resolve the social conflicts involving other settlements. The role of *Karwari* (messenger) was to assist the *Nayak* and the *Pujari* to organize different duties, functions, and ceremonies, etc., in the settlements. Another crucial duty of the *Karwari* was to deliver the Community Council message to the neighbouring settlements. For that, he is paid some obligatory fees from the Community Council. According to Champula Naik, though Community Council is still there in the settlements, it is defunct because of several reasons, which include the institution of adult franchise, introduction of Panchayat Raj Institutions (PRIs), increasing political participation, role of political parties, factions prevailing in the settlements among the kin members, etc.

#### INTER-COMMUNITY RELATIONS

*Sugali* of ADP have formal relations with each other. Though settlement is divided based on the party lines due to the impact of political parties, they do maintain harmony among them. They do attend each other's ceremonies, rituals and also their children's marriages. They fight with each other during elections as was observed during the last local body elections. However, this remains for few months and later they come together again. In case of NC *Thanda*, there is a continuous strife between the two clan groups.

It is also observed that both modernization and industrialization had its bearing on the livelihoods of *Sugali*, also impacted the performance of marriage ceremonies/rituals in the settlements. It is noticed in the settlements that these days they are not practicing traditional kinds of marriages, which used to be a ceremony for a couple of days. In the traditional type of marriage, the *Sugali* used to invite their clan members in the very beginning of the ceremony and also used to consult their Community Council. The role of Community Council was very significant in the past in selecting bride and groom as well as in arranging the alliances. Today, most of them are following marriage system as observable in other caste communities,

which are celebrated for one or two days with a short notice. Further, the venue of marriages is also shifted from groom's houses to function halls. Culture of function halls, which is called 'cultural influence', is a new phenomenon in the settlements. This phenomenon has emerged recently due to their education and influence of other cultures in the area. Earlier, all the marriages among *Sugali* used to be celebrated at the bridegroom's residencies. The *Sugali* take services of a Brahmin priest to conduct their marriages and other ceremonies like naming ceremony of a new born baby, betrothal, death ritual, etc. These changes can be attributed to the education of their children and also influence of other castes in the village as well as outside influences.

According to Santha Bai, President of the Village Organisation, *Sugali* are now inviting the Brahmin priest for conducting their rituals like the other communities in the settlements. The traditional institution of *Pujari*, as in the case of Nayak and *Karwari*, is now almost abandoned. This has its impact on the institution as well as on the traditional livelihoods and access to resources. This new trend could be a result of many factors including *sanskritization*<sup>3</sup> and other influences on the *Sugali*. Pome Naik, *Sugali* Community head in ADP *Thanda*, idiomatically said that the priest from the Brahmin caste takes money and food grains as the remuneration for his labour in the rituals. All these demonstrate the changing patterns of livelihood practices among the *Sugali*.

#### INTRA-COMMUNITY RELATIONS

*Sugali* maintain cordial relations with people from other castes outside their settlement. These relations are mainly seen in terms of their livelihood practices and their changing nature of the traditional institutions. *Sugali* farmers engage with other castes for mutual exchange of labour during the busy agricultural season and it is more specifically restricted to OBCs and OCs, and does not include the SCs. They also borrow cattle and plough and exchange them with their bullock cart. There is no *Jajmani*<sup>4</sup> system of relations working any more due to the changes in the cropping pattern and also education and employment, adult franchise, increasing voting, etc.

*Sugali* who involve in agricultural labour now get cash rather than grains as in the past. This has altered their relations with other castes' communities. Changes in the agricultural practices lead to change in the cropping pattern and now farmers do not require labour, because they have technology and machines to complete

<sup>3</sup> Sanskritization is a particular form of social change found in India. The term was popularized by Indian sociologist, MN Srinivas to denote the process by which castes placed lower in the caste hierarchy seek upward mobility by emulating the rituals and practices of the upper or dominant castes. It is a process similar to passing in anthropological terms. For more detailed description see M.N. Srinivas (1952).

<sup>4</sup> The notion of the *jajmani* system was popularized by colonial ethnography. It tended to conceptualize agrarian social structure in the framework of exchange relations. In its classical construct, different caste groups specialized in specific occupations and exchanged their services through an elaborate system of division of labour. For detailed description and analysis see Wisner (1969).

their work in quick succession. They use tractors for all requirements/the farm work. This has severely affected the livelihoods of the *Sugali* agricultural labour. These changes have increased the gap between other castes and the *Sugali* in the settlement. Earlier they used to have mutual understanding and collaboration with other castes, whereas now there is individuality that precedes the other relations.

It is observed that *Sugali* do not have any working relations with SCs and they believe that SCs are inferior to *Sugali* in all respects. One informant has mentioned that since SCs eat beef and pig 'we do not touch their food and water'. Another interesting observation was that *Sugali* have joined with OCs to oppose SCs entry into their newly constructed temple. There was acrimonious situation prevailed for few months and later they have agreed to perform *puja* for the SCs in the temple.

### CULTURAL EFFECTS ON *SUGALI* LIVELIHOOD

#### CHANGING FOOD HABITS

*Sugali* informed that traditionally their staple diet was millets and grains such as *sajjalu*, *samalu*, *jonnalu*, and *ragulu*. These traditional grains were considered as 'Dhanyalu', which are nutritious and energetic. Occasionally, they preferred rice as one of their food items. *Vadlu* (paddy) was not the same as the one which they consume now. Traditionally they used to grow *vattodlu* (paddy that grows in the slope areas during rainy season). They used to pound paddy with *rokali* (pestle) and it did not remove the layer on the rice and it was very tasty. They make it ready and keep it for occasional use. Though they were marginal farmers, they were happy with their traditional crops.

Over a period of time, due to the influence of outside culture, *Sugalis* food habits also changed. Rice replaced their traditional grains and it became their staple diet in both settlements. Somehow *ragulu* still occupies a place in their food basket and it is the main millet in their diet. Though *Sugali* in NC *Thanda* produce paddy as one of their crop enterprise, *Sugali* of ADP produce *ragi* as their main crop followed by paddy. All the *Sugali* in ADP have Below Poverty Line (BPL) cards and they get subsidised rice under the Public Distribution System (PDS) scheme. Though *Sugali* of NC *Thanda* also have BPL cards, they do not depend much on this scheme, since they have good resources. *Sugali* of ADP are mostly dependent on PDS scheme, because of which other crops did not get encouragement from the market. *Sugali* argue that since there is no support from the government for their traditional crops, and green revolution encouraged paddy, these changes made them forget their traditional crops. Siva Prasad and Pandey (2007) in their study argued that PDS has disturbed the traditional cropping pattern of the people and it made them more dependent on others, specifically on government.

## TECHNOLOGY AND LIVELIHOODS

Green revolution brought enormous shift in the cropping pattern of the people across the country (Aurora 1991; Chakravarti 1973; Kasi 2009a) and it is more visible in the study settlements. In this case, NC *Thanda* managed and adjusted to the new cropping pattern due to their location and exclusive utilisation of resources. It is not so in ADP because they are dependent on others, and resources are scarce. In ADP settlement, agriculture mainly depends on rainfall and whatever meagre resources they have are also not used properly due to lack of knowledge of modern agricultural practices. Green revolution also forced farmers to use more fertilizers and pesticides, which resulted in an increase in agricultural investment and making it difficult for the *Sugali* farmers to cope with the new trends. For those *Sugali* who have agriculture as their prime source of survival, these new changes did not favour them and they are not in a position to adapt themselves to the new technology. They felt that not only is it expensive, but is also not suitable to their location.

Green revolution also affected the chances of agricultural labourers of ADP settlement, where farmers use tractors for their cultivation practices. *Sugalis* are marginal farmers and majority of them depend on agricultural labour as their main means of livelihoods, which has been badly altered by technology. They are left with no choice but to migrate to other areas in search of their livelihood. This trend altered their social relations in the settlement. *Sugali* who migrated left their families behind, which led to an imbalance in social relations of the family. This trend is directly affecting their lives and livelihoods. As mentioned earlier, there are many separated women in ADP due to their husbands' migration to towns. They maintain illicit relations with others there, which has created rift among their familial relations. These incidents further have a bearing on their children's upbringing and also their own lives and society.

Few *Sugali* who are involved in agriculture as their prime sources are taking up new agricultural practices, however, they face extensive problems due to new technological tools/implements, which they lack awareness of. They are forced to sell their produce to a middleman because they do not have access to cold storage facility. The middleman is the one who gives money to them for buying seeds and fertilizers before the cropping season starts. Government storage facility is located in Penukonda, but due to transport and storage costs, they sell their produce to middlemen at prices lower than that of the market.

Another place where *Sugali* interact with non-*Sugali* is in the market place. The *Sugali* from both settlements go for *santha* (weekly market), every Sunday (ADP) and Thursday (NC *Thanda*), to get goods and other domestic items. Women get up early on that day and complete all the household chores early in the morning and go to *santha* for marketing. Those who do not have TV sets at their home, go to movies on *santha* day, which is the only source of entertainment. It was observed that they complete the marketing quickly and catch the matinee show of

the movies. After the show, if any shopping activities remain, they finish them and return to their homes. Another reason for going to movies on the market day is that on every Sunday, in Penukonda, the movie gets changed. This is a regular feature for the *Sugali* in both settlements.

Weekly market is the place where people buy their domestic requirements. Market is also the place where people share their joys and sorrows. People feel that market is the place where they meet their friends and relatives from the other villages. It fosters their relationships and also helps them in exchanging notes about different aspects including their livelihood pursuits and places of migration, etc.

### SUGALI MARRIAGE AND ADAPTIVE PRACTICES, RELATION TO LIVELIHOODS IN THE SETTLEMENTS

During the British rule, *Sugali* were engaged in theft and robbery (Devy 2006; Radhakrishna 2000; Reddy 1991; Thurston 1909; Bhukya 2010, Ramaswamy, Bhukya 2002). British government declared them as 'criminal tribes'. They used to engage in the criminal activities to lead their lives. After independence, Government of India declared *Sugali* as de-notified tribes and gave them land and persuaded them to settle down. Over a period they became settled agriculturists. However, due to lack of resources and non-affordability of necessary technology and inputs, *Sugali* became agricultural labourers and some have preferred migration. In order to survive and compete with the other castes, they have altered their livelihoods and have resorted to raising cash crops. Thus, as they started getting affected by the vagaries of market, it has had a bearing on their livelihood pursuits.

In the past, *Sugali* boys, as mentioned earlier, had to arrange money to pay bride price and get married. Bride price used to be even higher if a girl was hard working and responsible. A boy had to work for sometime in the groom's (bride's house) house or else he had to pay some token money to groom's (bride's) parents. Over a period of time, as in the case of agricultural practices, changes have also come about in the institution of marriage. Bride price has given way to dowry and now girls pursue boys to get married by paying dowry. There are various reasons for this shift from bride price to dowry. Due to an increase in cash crops production, there is an increase in circulation of money, which makes farmers and other people conduct lavish marriages, which is influencing other communities including *Sugalis*. This change has also come about due to the influence of education, employment, role of other castes, etc. Dowry has become an evil and parents now feel that the girl children are a burden. To earn more money for giving their daughters in marriage, they engage in diversified livelihood practices, which spins them more income.

Looking at the changing trends in the institution of marriage and also prevailing social-cultural situation in the settlement, parents of the ADP borrow money from the middlemen for arranging the marriages of their daughters. This is further abetting their poverty and process of marginalization. Thus, we can safely



assume that a daughter's marriage is one of the most significant examples, which reflects the livelihood condition of the family.

Some parents feel that dowry deaths that are reported from other areas have made them anxious at having a girl child in the Adadakupalle settlement. This is another grave situation emerging in the settlement due to their poor economic background and continuous drought conditions prevailing in the area. Hence, the livelihood practices of the people are slowly deviating from their past livelihood practices. This is the major reason for the families to accept seasonal migration to the towns and this is also observed in other areas of the state where *Sugali* parents sell their girl children for adoption.

### ROLE OF THE FESTIVALS IN *SUGALI* LIVELIHOODS

*Sugali* manages their livelihoods through different means and try to save money to utilise during their festivals. In order to keep up their social prestige, they celebrate community festivals ostentatiously. According to them, though there is a change in their livelihoods, there is not much difference in the celebration of festivals or ceremonies except for the length of preparations. *Sugali* celebrate their festivals today in a more refined way, however, with a small gathering. They cook rice, chicken or mutton and some dessert on such occasions. Earlier, they used to have a big gathering and one family used to sacrifice a goat or sheep on the festivals like *Maremma Jatara*. The change in the celebration of the festivals is clearly visible and they claim that since people are scattered in search of their livelihoods, whether in jobs or other related works in the towns and cities, they do not celebrate their traditional festivals in larger gatherings. Elders from both the settlements stated that the earlier livelihood practices were favourable for them to celebrate their festivals together, support each other in times of a crisis, and aided in maintaining and keeping up their traditional culture.

The *Sugali* feel that festivals, rituals and the celebration of holy days are part of the *Sugali* cultural inheritance and observation of these ceremonies has been passed on by their forefathers. In fact, these festivals are holy occasions and are the nerve centres of cultural customs and hence they are called as the '*Paruva*'. They are essentially a way of living and thinking in the course of existence and as such bring their whole power to bear on the individual and the society. These festivals are closely connected with the change of seasons.

In all the festive celebrations, *Sugali* pray to their family deities, *Meramma* and *Shevabhaya*. *Meramma* deity is believed to be the protector of their females, children, and also preserver of the fertility of their soil. *Shevabhaya* is regarded as the protector of their domestic animals such as cattle. *Sugali* celebrate the fertility festival of *teej*<sup>5</sup> beginning of the monsoon, i.e., in the months of June and July according to the Roman calendar.

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<sup>5</sup> Teej is usually celebrated in the month of July-August and it is dedicated to the divine couple – Lord Shiva and Goddess Parvati. Though Teej is celebrated at various places in India and abroad,

## TRADITIONAL FESTIVALS AND THEIR RELATION WITH LIVELIHOOD

Traditional fairs and festivals have a bearing on their livelihoods and still *Sugali* continue to perform them in the hope that their children's life will be good and God will help them in sustaining their livelihoods. Another important feature in celebrating the traditional festival is that *Sugali* believe that since they cannot perform *puja* to their God or family Goddess everyday, once in a year, they perform the rituals with gaiety. The important fairs in which *Sugali* of Adadakulapalle participate are *Narasimha Swamy Teru* and *Maremma Jathara*. Since Adadakulapalle is a multi-caste or community village, people here celebrate *Narasimha Teru* along with the *Maremma Jathara*. In NC *Thanda*, *Sugali* celebrate *Maremma Jathara*, but not *Teru*.

Fairs are the important occasions during which *Rathotsavas* (chariot processions) are performed in case of important deities. The *Ratha* (chariot) used for the procession is compared to the human body and the different functionaries of the chariot procession are supposed to represent the analogies for the spiritual and philosophical understanding of human existence. Elder people explain that human body is like a *Ratha* and *Paramatma* (immortal soul or god) resides along with *Jeevatma* (mortal soul) in the heart of a person. But they are separated by two layers or walls. Thus, *Jeevatma* can not have the *Darshana* (meeting) of *Paramatma* unless the doors are open. At the appropriate time, the wall separating them dissolves, the chariot procession acts as a catalyst in this process. When a person witnesses the procession, then in his heart seeds of *bhakti* (devotion) germinate. When devotion grows the partition between *Paramatma* and *Jeevatma* gets dissolved. This mutual merging of soul with God results in "*Mukti*" (salvation) – the eternal respite to escape from the cycle of births and deaths.

The fair is celebrated on '*Palguna Suddha Dasami*' around March, 21<sup>st</sup> every year at Adadakulapalle. This *Teru* is celebrated for five to seven days in the name of *Narasimha Swamy*. The fair starts with a *Rath Yatra*, on the first day. Adadakulapalle village head/Sarpanch/ sometimes leaders from outside the settlement arrive there, break coconut and declare *Teru* to have started. During procession *bhajans* (devotional songs) are sung, mantras are chanted and musical instruments are played. At some intervals, eulogizing slogans about *Narasimha Swamy* are rendered. A group of people from the settlement also make devotional dances.

*Rathotsava* means carrying *Swamy* in a chariot pulled by devotees on a plain road up to a traditionally fixed point and then bringing it back to the starting place. People believe that the chariot should not meet with an accident at the time of procession. A safe procession signifies the need for man to follow a virtuous life in order to reach the salvation. On this occasion, villagers surrounding Adadakulapalle settlement gather in a huge numbers using bullock carts as their transport. They decorate bullocks and bullock carts and it is an occasion where everyone wants to show that their bullocks are the better ones.

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major Teej celebrations take place in the highly cultural city of Jaipur. Here, day-long processions and celebrations create a vivid atmosphere.

### *Maremma Jathara*

*Sugali* in both the settlements celebrate this *Jathara*, which is held in the name of '*Maremma*' (*Sugali* village goddess). They can offer prayers and animal sacrifices on Tuesdays and Fridays only. The village deity is revered not only by the people of ADP, but also by people from the neighbouring villages who regularly offer prayers and animal sacrifices.

*Maremma Gudi* (Temple) is situated in the middle of the settlements. People believe that the deity blesses with well-being and protects them from all evil forces. People have to propitiate the goddess by offering animal sacrifices. The day on which the animal sacrifices are made is called '*Maremma Jathara*'. Usually, sheep, goats and hens are offered for sacrifices.

*Sugali* believe that if an individual or family is in a trouble or is facing serious health problems or having unfulfilled wishes, they offer prayers to *Maremma* and take a vow. They also believe that Tuesday and Friday are the auspicious days to offer betel leaves, a small quantity of rice, jowar, bajra, and break coconuts to goddess *Maremma*. Then, with folded hands, they convey their desires or problems to the deity. This is called '*Aakupooja*'<sup>6</sup>. As part of their worship to *Maremma*, people express that if their problems are solved, they would conduct '*Jathara*' to propitiate her. This is called '*Mokkubadi*' (vow).

The devotees whose wishes are fulfilled announce that *Maremma Jathara* will be organised by them in one particular year to fulfil their *Mokkubadi*. Generally, after *Aakupooja* prayers, *Jathara* is observed either on third or fifth year. At the time of *Jathara*, it is obligatory for them to call their respective kinsmen within and outside the settlement and arrange a 'Community Dinner'. Usually, a minimum of three to five households celebrate *Jathara* at a time in one year in order to reduce expenses, and also with the intention that everybody in the settlement will be invited by one or the other organizing households of *Jathara*.

The particular person in the family whose desire is fulfilled has to carry a pot full of food specially prepared with rice, pulses, jaggery, etc. Sometimes along with him, even one or two other members in the household or kin group whose desires are also fulfilled carry 'Pot' on their heads. Throughout the procession and until completion of *Jathara*, *Melagallu* (who play musical instruments) and *Thappadi Vallu* (drum beaters) continue their traditional music. Devotees who carry pot will be walking in the canopy, which is carried by four persons.

By the time they reach the temple, *Chakali* women put old saris around the temple. The persons carrying pots and their kinsmen walk on these cloth around the temple as two men go on pouring water on it continuously. This process continues until they complete three rounds of circumambulation of the temple. Then they go inside the temple, ring the temple bells and go near *Garbhagriha* (main altar place) and give prepared food to *pujari*, who in turn offers it to *Maremma* deity. *Pujari*

<sup>6</sup> Offering betel leaves to goddess, this is in vogue in the rural and urban areas of Indian society even now.

chants religious hymns or devotional utterances, applies vermilion and turmeric on the pot and breaks the coconuts.

Then all the people come out and make arrangements for animal sacrifice ceremony. There are a few professionals engaged who cut the neck of sacrificial animal in one stroke. For some time, these professional cutters argue among themselves about who can be the best person for doing it and then one of them performs it. Whenever *Jathara* is organised, there are tens of animals sacrificed. On the *Ugadi* (Telugu New Year) festival the number goes even higher. They pour water on the specially erected pillar on the platform in front of the temple and apply blood of the sacrificed animal to it. Organizers of the *Jathara* cut legs of animals and place them in front of the temple. With this, people believe that *Maremma* gets satisfied. Women of *Jathara* prepare food with the meat of the sacrificed animal and have a community dinner.

#### BELIEFS AND TABOOS ASSOCIATED WITH LIVELIHOODS

*Sugali* start their agricultural operations by performing some *puja* to their family goddess to protect their crops. They also perform *puja* to their cattle and plough before the start of the agricultural season. All these practices symbolise the socio-cultural dynamics and livelihood pursuits of *Sugali* society.

They also have some taboos, which they strictly implement in the process of their livelihood pursuits. For instance, people associated with menstrual period, child birth and death pollution in general are considered potential anger causes to the deities. Hence, they observe avoidance of them during their ritual acts, as they are under pollution for a particular period of time. During this period, they do not enter their agricultural fields, kitchen gardens, temples and also are not allowed to participate in any rituals in or outside their houses. Further, they never touch the grain, fruits, vegetables and even agricultural implements or tools in and outside of their homes. If anyone, even by accident, breaks the taboo, strict observance of rectification is observed during first eating ceremony by offering sacrifice. Otherwise, they believe that the curse of the deities will fall on to the entire settlement.

Even for the construction of a house, the land owner has to perform symbolic rites at the selected plot to avoid evil-eye of spirits. They dig out in the centre of the plot and erect a centre post, which is like pillar to the entire structure. They tie one cloth ridden *moota* to its end. It consists of all varieties of millets, turmeric, vermilion, etc. Prior to that, the cloth used for this purpose is dipped into turmeric water and vermilion is applied to it. After this, tender leaves of mango are also pierced to the post. One empty gunny bag is placed to cover the ceremonial material of the pole to avoid exposing it. They practice it to avoid an evil eye (*drusti*). They believe that this will ward off the entry of evil spirits, and hence, even after completion of the construction of the house, they don't remove that sacred material.

### CONCLUSION

Compared to the last 10 years, children now go to school more than before. Now women feel more empowered because they have more liberty (earlier, elders used to control them). This change took place because of their involvement in self-help groups, government and SEDS programmes (Kasi 2009b: 281–294). Going forward, they want everybody to study and get good jobs. Women especially wish for a future in which complete gender equality exists. Livelihood is a part of culture and reflects the influence of culture. Secondly, livelihoods also reflect on how they are structurally interrelated with the cultural practices and, more specifically, on how the people are closely associated with social system as well as livelihood culture. In one sense, livelihood is a central and essential focal point of the people, which helps to document a socio-cultural and economic reality of the community and gets manifested in their social institutions where a layman can also observe the richness of culture. In this way, we can observe that the culture of livelihood or livelihoods' culture existing among the *Sugali* tribes in South India.

Cultural effect on the *Sugali* brought changes not only in their village/settlement, but it also spread to the neighbouring settlements. These changes further provide a way to understand their social structure and other developmental practice. Hence, adaptations of people brought significant results in the form of social, cultural, and economic parameters, which form the backbone of any society. Thus, Chaudhary's (2000) definition clearly validates the findings of the paper. Considering these parameters and cultural effects of people, my paper concludes with a note that these findings may lead to further research, which would definitely give a scope for analysis of adaptations of livelihoods among *Sugalis* of South India.

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# ASPECTS CULTURELS COMPARATIFS DU TRAVAIL DANS LES ENTREPRISES MULTINATIONALES<sup>1</sup>

GABRIEL-IONUT STOICIU<sup>2</sup>

Opening the geographical and political frontiers worldwide was part of the post-1989 changes in Central and Eastern Europe. This opening was seen as a logical orientation after the decline of Soviet control over the entire region. One of the most common situations nowadays is when a multinational decides to close its unprofitable mother plant (thus raising mass protests) and relocate it to a “lower wage” country, where this ‘foreign investment’ is seen as an invasion (also raising mass protests but otherwise motivated). The main object of the research presented hereby is to show the way in which an employee of a multinational enterprise sees his/her socio-professional position and future related to the cultural adaptation of work habits to foreign managerial styles and imported technologies. The fieldwork was based on the hypothesis that depending on decisions and innovations brought from abroad, can give an increased feeling of employment insecurity, unacceptable to some people even if it means efficiency, profit and bigger incomes.

**Key words:** globalization, multinational enterprise, postcommunist transition, job satisfaction.

## INTRODUCTION: L’EUROPE POSTSOCIALISTE À L’ÂGE DE L’INTÉGRATION»

L’ouverture politique, économique, géographique et culturelle, qui a fait partie des changements d’après-1989 en Europe Centrale et Europe de l’Est était considérée comme une réaction logique après le déclin du contrôle soviétique sur toute la région. Les nouveaux « citoyens libres » estimaient qu’ils pourraient enfin choisir des pays à visiter, des informations à croire et apprendre et – peut-être le plus important – les gens pour (les) représenter. En plus, de tous les changements sociaux et politiques, la restructuration économique a eu l’impact le plus spectaculaire sur ces nouvelles démocraties. Les règles de la concurrence et de la

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<sup>1</sup> Cet article représente une très courte (conforme aux règles de publication de *l’Annuaire*) présentation d’une recherche plus vaste. Il est basé en principal sur ma thèse. Il s’agit d’un terrain suivi entre 2002–2004 composée par des notes d’observation dans plusieurs entreprises françaises et roumaines, ainsi que des entretiens de groupe (deux reprises avec huit sujets dans chaque pays) et des entretiens individuels (une quinzaine dans chaque pays).

<sup>2</sup> Institut d’Anthropologie «Francisc I Rainer» de l’Académie Roumaine.



profitabilité, la modification des accords commerciaux internes et externes d'avant 1989, ainsi que la pression du Fond Monétaire International et de la Banque Mondiale, ont obligé les nouveaux régimes de poursuivre la libéralisation et la privatisation. Dans les années 1980, les pays de l'Europe Centrale et Orientale ont réagi de manières très différentes à l'aggravation de la crise du «rêve communiste».

L'intégration européenne, ainsi que la mondialisation, ne sont pas des phénomènes naturels qui se soient passés sans la détermination des gens. Les principaux intérêts motivant le processus d'intégration européenne sont économiques (liés au profit), politiques (liés au pouvoir) et culturels (exploration d'autres identités). Ils sont gérés par trois institutions – acteurs de la mondialisation : les entreprises transnationales avec leurs flux de capitaux, les organisations intergouvernementales (Commission Européenne, Conseil d'Europe, etc.), et les organisations non gouvernementales. Parmi ceux-ci, les entreprises multinationales sont le principal promoteur du processus d'intégration, tandis que les deux autres (avec l'État-nation) tentent de négocier ce processus. De nombreuses entreprises transnationales réussissent à se dérober à la réglementation locale et au contrôle des gouvernements nationaux. Dans «le nouveau esprit de la compétition», ces entreprises ne sont même pas intéressées à protéger leur usine d'origine ou leur siège central si cela peut affecter les bénéfices.

La Roumanie est confrontée aussi avec une faille en ce qui concerne la qualification à tous niveaux, à l'exception de quelques branches de la recherche. Ainsi s'est produit une baisse annuelle de la productivité et en même temps, du niveau de vivre, fait reflété sans doute dans la baisse du pouvoir d'achat de la monnaie nationale.

« La chute du socialisme est définie par deux changements majeurs: un changement vers un système multipartite, et la réintroduction d'une économie de marché » (Lampland, 1995: 341). Les événements de 1989 ont ouvert l'Europe Centrale et Orientale par le renforcement d'un climat démocratique et d'une connaissance élargie des possibilités et des idées de libre échange. Les opportunités apportées par les changements socioculturels ne doivent pas donner lieu à une convergence dans la forme, ni dans le contenu, des traits spécifiques de toute société ou collectivité.

Les déplacements dans la structure occupationnelle sur secteurs d'activité nous montrent un processus concomitant de la désindustrialisation et de la re-agrarisation, ainsi qu'une capacité assez modeste du secteur des services de générer d'emplois pour la population mise en disponibilité de l'industrie.

#### LES ENTREPRISES, LES MARCHES ET LES ÉTATS DANS LA NOUVELLE ÉCONOMIE DE L' « INTEGRATION »

Les entreprises multinationales existaient bien avant l'âge industriel. Les banques, comme celles italiennes, avaient des établissements au Royaume-Uni pendant le XIV<sup>e</sup> siècle. Les firmes espagnoles avaient des filiales en Amérique Latine. Il y a aussi le célèbre exemple de la Compagnie des Indes de l'Ouest.

Dès le XIX<sup>e</sup> siècle, en même temps que l'expansion des moyens de transport et de communication (les trains, les bateaux à vapeurs et le télégraphe), s'est passé l'exploit des entreprises multinationales modernes.

En 1914, au moins 41 entreprises américaines appartenant au secteur des machines ou de l'industrie alimentaire, comme Singer Sewing Machine, Westinghouse, International Harvester, General Electric, Ford, avaient déjà établie une ou deux filiales à l'étranger. En 1908, Ford arrive en Angleterre (Trafford) pour assembler des automobiles à l'aide de composants importés des États-Unis. Cinq ans plus tard Ford devient le plus gros producteur de Grande-Bretagne.

Du côté des firmes européennes, près de 40 ont des filiales à l'étranger avant 1914. De nombreuses firmes allemandes sont déjà multinationalisées, comme Siemens, AEG, Hoechst, Bayer, BASF, Agfa... Dès 1907, Michelin établit sa première usine aux États-Unis. Au Royaume-Uni la firme Marconi était multinationalisée et elle avait de la concurrence en Bell. En Suède Ericsson faisait une concurrence internationale dans le même domaine.

Sous la pression de la concurrence au niveau local ou sur le marché mondial et en visant « l'augmentation et le re-investissement du profit » les grandes firmes retrouvées de plus d'une vingtaine d'années dans le processus de la transnationalisation par l'implantation des unités dans divers pays, accélèrent leurs démarches en ce sens, en créant des divisions similaires ou complémentaires à l'entreprise d'origine. Les entreprises sont de plus en plus souvent soumises à des normes et se retrouvent dans des réseaux qui leurs imposent des contraintes de fonctionnement uniforme, une tendance raffermi par la forte utilisation des technologies informatiques de plus en plus standardisées.

La multiplication des fusions, des acquisitions et des scissions contribue aussi à l'uniformisation, en affectant, dans un rythme accéléré, le spécifique culturel et en estompant l'empreinte nationale des firmes. On remarque aussi des fusions et des absorptions des firmes retrouvées autrefois en concurrence directe pour la première place dans le monde comme production et ventes.

Ces évolutions provoquent une unification accrue de l'appareil productif au cadre d'un immense réseau qui fonctionne d'une manière de plus en plus uniforme, même si elle reste au même niveau de hiérarchisation. Les frontières des entreprises semblent perdre leur signification quand il s'agit des droits et des conditions d'emploi « rentables » (Laval, p.40). Aujourd'hui ce n'est plus le cas, dans la plupart des professions, les équipements ont une connotation mondiale, et leurs fabricants sont dans un nombre réduit. Deux entreprises qui produisent la même chose dans l'Amérique de Sud et dans le Nord de l'Europe le font de la même manière et en utilisant les mêmes machines. Et cela n'est pas valable seulement pour les activités de fabrication au sens classique du terme, mais pour l'ensemble de l'organisation administrative de la firme. L'adoption généralisée des programmes de gestion représente un stimulant des processus d'uniformisation croissante des structures et modes de fonctionnement des firmes. La même logique se retrouve à l'origine du succès des réseaux de franchise, dans des secteurs comme

celui de services de distribution, qui reste encore, formellement, dominé par de petites entreprises théoriquement indépendants. On vend ainsi dans le même temps une image de marque et un mode de fonctionnement uniforme et optimisé.

L'économie de marché moderne s'est développée autour de trois types d'institutions: les entreprises, les marchés et les États, avec la monnaie comme liant. Les entreprises et les marchés sont les endroits clés de l'action pour les grands changements qui conduisent à l'homogénéisation des processus structurels nécessaires pour l'intégration globale. Cette «intégration» économique est liée à l'équilibre entre deux formes d'organisation: la stabilité de l'entreprise et la fluidité du marché. Cet équilibre n'est pas stable par défaut. L'État, par l'audit des entreprises et de l'activité du marché, joue un rôle central dans le constituant d'un équilibre optimal entre la dynamique concurrentielle des marchés et de la logique monopolistique des entreprises (multinationales). Aujourd'hui, le contraste entre le marché, l'État et les entreprises semble être de moins en moins prononcé. Ces changements conduisent à une unification augmentée du système de production avec la création d'un immense réseau qui fonctionne de manière de plus en plus uniforme. De nos jours, les normes de qualité d'une marque sont imposées à travers le monde à un niveau similaire et cela aboutit à l'élaboration d'exigences technologiques similaires, telle que deux usines qui produisent les mêmes produits en Amérique du Sud et Europe occidentale, par exemple – doivent rendre leurs produits de la même manière en utilisant des machines similaires. Dans un monde où les investissements et les bénéfices ont tendance à outrepasser les frontières étatiques, les entreprises entretiennent les disparités régionales par des allocations budgétaires salariales et des mesures de sécurité au travail inéquitables.

L'accélération du phénomène de l'internationalisation des économies occidentales, l'intégration des quelques pays récemment industrialisés dans l'économie mondiale et la place de plus en plus forte des firmes multinationales dans les relations économiques internationales sont autant d'éléments qui marquent le développement de ce processus de mondialisation. Si le procès général se caractérise par le développement des mouvements du capital, la phase de multi-nationalisation reste encore dominée par des mécanismes de l'économie réelle, c'est-à-dire celle de la production. Par conséquent la déréglementation et l'ouverture des marchés nationaux de capital, le développement d'une économie «immatérielle» soutenue par les nouvelles technologies de l'information et de la communication ont favorisé l'apparition d'un nouveau phénomène: celui de la mondialisation basée sur un processus d'autofinancement, sans l'intervention obligatoire des autres organismes ou institutions politiques.

En suivant une telle règle de jeu, le succès d'une firme s'appuie sur sa capacité d'acquérir de nouvelles compétences et ressources, de les combiner d'une manière optimale, en exploitant au maximum les compétences existantes dans de différents pays et si nécessaire en achetant les marques locales qui puissent assurer une meilleure distribution des produits réalisés et puis finalement de rapatrier la majorité du profit dans son pays d'origine.

L'État nation, comme espace d'action privilégié des entreprises nationales, a été en quelque sort «déstructuré» par la réalité de la mondialisation. En pratique, dans l'économie contemporaine, les filières de perfectionnement supposent une multitude de personnes de différentes nationalités intervenant dans de divers stades du processus productif, dès la conception à la vente de la matière première à l'utilisateur final.

Les multinationales étaient parfois considérées par les États comme potentiellement dangereuses, car elles pouvaient menacer la souveraineté nationale. Ces firmes sont devenues par la suite des alliés potentiels, car elles rendaient possible le développement de l'emploi local, les transferts éventuels de technologie et la croissance économique.

Cela est la cause des politiques de réglementation des investissements étrangers et elle a permis le développement de la concurrence entre les États pour attirer les firmes multinationales.

L'État nation, cadre pertinent de stratégie économique, laisse ainsi la place à un «réseau mondial» (M. Castells) d'entreprises et groupes transnationales. Le concept d'espace national est remplacé par celui de «site d'implantation».

Orchestrée autour des entreprises multinationales, l'intégration mondiale peut être considérée comme une étape ultérieure à la mondialisation.

Pour les dirigeants des États nations, la priorité de la politique économique en conformité aux interdépendances de l'État nation et de son espace externe, doit être reconsidérée n'étant plus orientée vers un nombre maximum d'emplois, mais vers la réalisation du meilleur placement dans la division internationale du travail. On favorise ainsi, les activités à la plus rapide croissance, celles qui tendent vers un monopole international et qui puissent apporter ainsi des sources de prospérité qui assurent une avance économique et sociale stable.

À l'heure de «l'économie mondiale intégrée» la nationalité d'une compagnie représente une notion de plus en plus fluide. Dans un marché de capital ouvert à chaque transaction, la désignation de l'actionnaire majoritaire comme étant le gérant de la nationalité de la firme est la seule solution pertinente qui puisse être prise en compte. Mais quand l'actionnaire majoritaire est une communauté multinationale à participation égale, le terme de nationalité de la compagnie devient inutile.

Certainement, le style de management peut définir la nationalité de la compagnie, mais dans un monde d'une concurrence croissante, les solutions plus rentables de faire appel à un manager ou à un système de management importé remplacent les principes nés de patriotisme et s'imposent par pragmatisme.

Ces tendances augmentent en nombre, mais pour encore quelque temps d'ici, il reste évident que Nestlé, Airbus, Philips sont des firmes européennes, Coca-Cola et Microsoft des firmes américaines et Sony et Toyota des firmes japonaises. La nationalité des entreprises, dans laquelle cohabitent des cultures et intérêts divers, reste encore – même si elle devienne de plus en plus conventionnelle. Elle reste surtout un élément de représentation pour chacun étant liée à une certaine langue et une certaine culture, qui sont au cœur des phénomènes d'identité. «L'identité se définit comme l'ensemble des répertoires d'action, de langue et de

culture qui permettent à une personne de reconnaître son appartenance à un certain groupe social et s'identifier à lui. » (Warnier, 2007: 8)

Dans le langage des économistes, les États nations restent des « blocs de facteurs de la production ». Cela signifie que chaque espace national participant à la compétition économique mondiale le fait par ses citoyens possesseurs des qualifications et des compétences. Leurs actions reflètent d'une manière fidèle des systèmes de valeurs, traditions, règles de conduite et des systèmes de management.

Les gouvernements des pays d'implantation exercent quelquefois une grande influence sur les choix technologiques et surtout sur les stratégies d'innovation avancées localement des filières des entreprises multinationales, en arbitrant la concurrence entre celles-ci et les entreprises locales par l'intermédiaire des réglementations en domaine (lois de la concurrence, monopole, etc.), par le système des taxes douanières, de la fiscalité, et celle des politiques commerciales. La complexité des mécanismes décisionnels concernant la technologie, ainsi que les risques impliqués, empêche l'intervention efficace de l'État dans ce processus.

#### LA DIMENSION CULTURELLE DES ENTREPRISES MULTINATIONALES ET LES IDENTITÉS COLLECTIVES

Claude Lévi-Strauss exprimait la crainte que la modernisation dans le monde entier et le développement de la communication, des échanges et des contacts entre les groupes humains ait lancé un processus d'homogénéisation culturelle (Lévi-Strauss, 1983: 128).

La déterritorialisation de la culture a créé une situation dans laquelle le contexte de l'identité est à la fois dans le territoire et à l'extérieur, ce qui marque l'abandon des cadres « traditionnels » de référence. Mead, dans sa discussion sur la « genèse de soi », explique que, outre les rapports aux autres, l'identité est construite comme un résultat de l'interaction d'une personne avec l'environnement. La construction de l'identité dépend souvent de l'acceptation de cet environnement, laissant entendre que si les identifications ne sont pas approuvées, la validité de cette construction commence à diminuer (Mead, 1962: 153). Ce que Mead entend par « environnement » sont toutes les autres personnes « dans le monde extérieur », dans ce qu'il définit comme « l'autre généralisé ». Comme Enriquez (1988) indique, les entreprises offrent une culture – une structure de valeurs et des normes, une façon de penser et un moyen d'appréhender le monde – qu'orientent les acteurs. Ce système culturel est un ensemble de facteurs sociaux, historiquement organisés en représentations. C'est un mélange de traditions, des coutumes, des rituels et des croyances qui donnent une spécificité à un groupe de travail. Les entreprises développent un processus d'apprentissage et la socialisation de différents acteurs de sorte que chacun d'eux peut se définir par rapport à l'idéal proposé. Chaque modèle de socialisation a comme objectif de sélectionner le « bon comportement », les « bonnes attitudes », et il joue ainsi un rôle dans le recrutement dans ou dans l'exclusion de ...l'organisation » (Enriquez 1988: 211).

D'après Sainsaulieu (1988), les identités collectives dans les entreprises ont été étudiées selon trois dimensions. Tout d'abord, en termes d'espaces d'identification, dimension qui se concentre sur les domaines d'adhésion et de référence pour les individus. Deuxièmement, en termes de représentations sur l'autorité: on comprend les idées sur l'organisation hiérarchique d'une entreprise, le lieu des processus décisionnels, l'espace pour l'action individuelle et collective, de développement du personnel, et les représentations de l'entreprise elle-même et ses performances économiques. Troisièmement, en termes de résultats de sociabilité, l'ensemble des relations que s'institue lui-même dans un groupe au travail et des normes de comportement qui sont construits là-bas. Sainsaulieu décrit également les quatre espaces d'identification. Le premier de ceux-ci concerne le contenu du travail comme l'intermède de perfectionnement professionnel; le deuxième constat: l'entreprise comme lieu d'appartenance qui assure une intégration à un collectif; le troisième concerne les carrières comme projets liant l'identité acquise avec celle envisagée; et le quatrième concerne la société externe comme point de référence explicite à l'action investie dans le travail.

#### LES ASPECTS COMPARATIFS DE L'EMPLOI DANS LES ENTREPRISES MULTINATIONALES

Les différences culturelles entre les salariés dans les entreprises multinationales peuvent apporter des difficultés importantes dans la production et les activités administratives de l'entreprise. La présente recherche vise à comparer les perceptions différentes des conditions de travail liées à l'accélération du processus de mondialisation et se fonde sur plusieurs entretiens avec des salariés français et roumains des entreprises multinationales. La France a été confrontée aux mouvements antimondialisation (ATAC) et à la relocalisation des usines pour pays à bas salaires comme la Roumanie où, en échange, l'investissement direct étranger est rejeté par des travailleurs «nostalgiques» de l'ancien régime communiste.

Laszlo Kürti (2002) a décrit la manière dont ce phénomène a été rencontré avec des temps différents à travers l'Europe de l'Est postcommuniste. Csepel, une banlieue ouvrière de Budapest, c'est trouvée face à différents stades de l'industrialisation de l'ère communiste jusqu'au mécontentement actuel vers les investissements étrangers. Comment la mondialisation et l'eupéanisation ont eu lieu dans la capitale de l'Hongrie peut être facilement vu dans l'ethnographie des travailleurs fait par Kürti: « Encore plus important pour les travailleurs et leurs familles ont été les conséquences de ces transformations supranationales comme ils se sont fait sentir dans leurs propres vies: les célébrations de l'effondrement du socialisme n'ont pas surgi ni quand le développement d'entreprises conjointes est apparu sur l'horizon dans Csepel. Les co-entreprises Est-Ouest n'ont pas et ne pouvaient pas sauver la classe ouvrière industrielle, traditionnellement qualifiée,

causant d'énormes ressentiments chez les travailleurs et leurs familles.» (Kürti, 2002: 234).

Une analyse similaire, mais comparative transculturelle (entre la ex-centralisée Roumanie et une démocratie stable comme la France), en se concentrant sur les remarques des employés au sujet de leur position dans les entreprises multinationales, semble extrêmement utile. Cette analyse des employés d'une multinationale peut avoir plusieurs dimensions et variables:

- 1) la dimension culturelle – suppose les interactions, les échanges interculturelles;
- 2) la dimension économique – le marché en termes de concurrence et de profitabilité;
- 3) la dimension individuelle – l'impacte des conditions de travail sur l'employé ;
- 4) la dimension sociale – les syndicats, les politiques économiques et sociales de l'État.

Ces dimensions et variables mènent à des indicateurs différents tels que: **le prestige conféré par la marque de l'entreprise, le chômage et la sécurité sociale, les relations dans le travail et au sein de la hiérarchie** – des indicateurs qui ont été utilisés dans la présente recherche.

#### OBJECTIFS ET MÉTHODOLOGIE DE LA RECHERCHE

« Les performances techniques dans la culture du travail sont le principal moyen par lequel les travailleurs s'expriment aux initiés au sein du groupe de travail. Plus simplement, les gens interagissent avec des outils et des machines basées sur les précédents des savoirs hérités, mais leurs positions sociales au sein du groupe de travail peuvent être modifiées par leurs représentations de soi. » McCarl (1992: 69)

L'objet principal de cette recherche est, en prenant le point de vue de McCarl, de présenter la façon dont un employé dans une entreprise multinationale (MNE) voit sa situation professionnelle et sociale, ainsi que son avenir liés à l'adaptation culturelle aux habitudes de travail, aux styles de gestion et aux technologies étrangères, autrement dit, à la mondialisation. J'ai envisagé plusieurs aspects concernant la perception de l'autonomie décisionnelle qui concerne les pertes de l'emploi dans une multinationale et la spécificité des relations horizontales et verticales dans un environnement multinational. J'ai aussi essayé d'extraire une corrélation entre le concept de base de travailler dans une multinationale, le niveau de difficulté et la complexité des tâches, les conditions de travail, les salaires et les possibilités de promotion.

Mon hypothèse principale est que les décisions et les innovations venues de l'étranger donnent un sentiment accru d'insécurité de l'emploi, inacceptable pour certains salariés, même si elles sont synonymes à l'efficacité, et aux bénéfices dans leur revenu. Si les employés ne sont pas conscients des incitations et des

innovations, leur résistance au changement tend à augmenter. Cependant, les possibilités de reconversion peuvent diminuer cette résistance.

Afin de mieux illustrer les différents aspects d'un sujet comme celui-ci, une approche qualitative semble appropriée. J'ai utilisé des entretiens semi-structurés de groupe et individuels. Les entretiens de groupe ont l'avantage d'un engagement plus vif au cours des discussions, mais ils sont plus difficiles à modérer. Les entretiens individuelles, plus personnelles, m'ont permis de plonger plus profondément dans les zones problématiques et de découvrir les motivations des gens. Les travailleurs interrogés étaient salariés syndiqués, employés de plusieurs entreprises multinationales en France, et dans des entreprises roumaines privatisées grâce à des investissements directs étrangers.

Il s'agit finalement d'une étude de cas sur une situation qui a apporté beaucoup de préoccupation pendant les années '90 : une augmentation des manifestations des protestes ainsi à l'Ouest qu'à l'Est de l'Europe causées par les licenciements massifs – les causes étant différentes même opposables (délocalisations à l'Ouest / privatisations à l'Est).

Les groupes français et roumains n'étaient pas du tout homogènes. Ils ont été tous les deux composés par des salariés allant de l'école élémentaire aux études postuniversitaires. Tout au long de la recherche on a eu l'intention d'illustrer la similarité dans leur perception sur le statut de leurs entreprises multinationales et les conséquences de ce statut. En Roumanie, j'ai étudié le cas de deux sociétés – Pipera et Miorița – dans le domaine du mobilier et des produits laitiers qui ont été privatisées après 1990. Elles étaient dénommées «combinats» pendant la période communiste, et employaient un énorme nombre de travailleurs, formant une chaîne technologique complète, permettant à la production industrielle roumaine à devenir de plus en plus autarchique. Après 1990, ces combinats ont été divisés en plusieurs unités relativement autonomes et privatisées séparément. La force de travail dans les deux entreprises a diminuée graduellement jusqu'à 20 %, une fois que les nouvelles machines ont été portées et la gestion a été modifiée. Avant 1989, la société de meubles exportait vers l'URSS et la République Démocratique Allemande mais, entre 1992 et 1999, la production a diminuée en raison d'un manque de demande. Après 2001, le fabricant de meubles a été complètement restructuré et privatisé et a engagé de nouveaux contrats externes et maintenant il est sur la bonne route. L'autre société, Miorita, a été parmi les tristes perdants de la privatisation en Roumanie. Après avoir été l'une des usines laitières principales dans le pays, la privatisation et la mauvaise gestion l'ont mené à être presque entièrement anéantie (depuis 2004 ses terrains ont été loués à un hypermarché). Les travailleurs des deux sociétés roumaines ont été un peu réticents à répondre aux questions, ils affirmaient avec sarcasme: «Même les murs ont des oreilles» (allusion à l'ancienne police secrète communiste – la Securitate). Cette peur commune qui bloque la libre expression n'a pas encore disparu en Roumanie, même vingt ans après la chute du régime communiste. Une autre raison pour expliquer leur réticence avait à faire



avec l'inquiétude perpétuelle sur les problèmes sociaux résultant de l'économie chancelante de la Roumanie.

Les sujets français travaillaient dans des entreprises comme Alstom (un constructeur de moteurs), Becton-Dickinson (fabricant d'origine américaine d'instruments pharmaceutiques), Caterpillar (une société américaine des véhicules industriels), Rossignol (un fabricant français d'équipements sportifs), Rhodia (unité de l'industrie chimique française) et Schneider Electric (un fabricant français d'équipements électriques). Craindre le chômage comme une conséquence sociale et professionnelle grave causée par la mondialisation était une attitude très répandue. Ils ont également exprimé leur inquiétude à propos de l'homogénéisation culturelle mondiale avec des conséquences sur la main-d'œuvre. Compte tenu du fait qu'il y avait des représentants syndicaux dans les usines étudiées (enregistrés dans les deux confédérations françaises les plus importantes, CGT et CFDT), les salariés français n'ont pas eu peur de m'inviter chez leurs lieux de travail.

Les entretiens en France se sont déroulés aux sites industriels des entreprises antérieurement mentionné à Grenoble entre 15 avril et 15 mai 2002. La recherche en Roumanie avait été entreprise un an auparavant. Toutes les entretiens – que j'ai réalisés tout seul – ont eu lieu de manière tranquille, dans une ambiance libre, et sans aucune ingérence qui pourrait être causée par une barrière linguistique. Les personnes interrogées étaient aimables, motivées et bien informées, donc, des raisons pour considérer les entretiens avec les Roumains et les Français comme des expériences extrêmement riches.

#### LA PERCEPTION DES SALARIÉS DANS DES ENTREPRISES MULTINATIONALES CONCERNANT LES CONDITIONS DE TRAVAIL DANS CE TYPE D'ORGANISATION

La majorité des salariés **français** interrogés estimaient comme prestigieux de travailler dans une multinationale. Ce prestige est donné non seulement par la taille de l'entreprise, les produits commercialisés, et l'organisation spéciale des activités (la gestion), mais aussi par les mesures spécifiques des politiques sociales adoptées et appliquées à l'intérieur de l'entreprise. Un technicien de Schneider raconte: « Les multinationales ont une influence plutôt positive sur la carrière d'un individu: la diversification des fonctions. Plus l'entreprise est importante et bien établie, plus des chances de promotion se posent. Oui, il y a la possibilité de développer la polycompétence: plus de formation interne, l'amélioration de l'homme, des ressources et de la gestion de projet ; aussi la possibilité d'acquérir des connaissances d'autres cultures. » « La mode Caterpillar accroît le sentiment de fierté, le prestige des employés », a déclaré un ingénieur de Caterpillar. « Les entreprises multinationales américaines ont une meilleure capacité de réagir aux différents problèmes », soutien un travailleur à Becton-Dickinson.

Toutes ces caractéristiques de l'entreprise multinationale représentent ce que Sainsaulieu appelle « espaces d'identification qui déterminent les domaines de

l'adhésion et de référence pour les individus » (Sainsaulieu, 1984: 259). Ils lient l'identité individuelle à la renommée de leur entreprise dans un dôme de prestige devant les employés d'autres entreprises. Les salariés **français** apprécient les conditions de travail et leur amélioration permanente (à l'exception d'un travailleur de Schneider – « Encore travail taylorisé » – une référence au célèbre Frederick Winslow Taylor et son modèle de l'Organisation Scientifique du Travail). Ils considèrent que les changements importants se produisent dans le moyen terme. « Changer de conditions de travail tous les 5–10 ans, en fonction de la compétition, les machines évoluent encore plus rapidement. Innovation technologique au maximum tous les 10 ans », a déclaré un travailleur chez Alstom. Ils éprouvent une sorte de pression de l'organisation que la majorité l'attribue à l'aspect multinational de l'entreprise, à sa compétitivité – « l'évolution en fonction de la concurrence [entre] Rossignol [et] Salomon » – sur le fait qu'un changement dans une usine placée quelque part dans le monde peut générer un changement dans tous les pays d'implantation. « Les choses deviennent encore plus pyramidales qu'auparavant », ont suggéré, lors de l'entretien de groupe, les employés de Rossignol, Rhodia et Electricité de France (EDF).

Selon les **français**, les principales caractéristiques des multinationales sont les suivantes: dynamisme, polyvalence, changement de tâches – parfois imprévu, les fluctuations de supervision par la hiérarchie. Un gain important attaché à la nature multinationale est la possibilité d'acquérir de nombreuses informations sur le travail. « Pour nous informer sur les nouveautés, il y a un programme d'aperçu technologique et aussi des magazines et l'Internet », a commenté un sujet de 38 ans, ingénieur de Schneider. Les ouvriers **français** estiment qu'il existe une autonomie de la tâche d'exécution dans les entreprises multinationales, mais cette manière n'exerce aucune influence sur la puissance globale du processus décisionnel. Ils considèrent cette situation à la fois comme une cause et une conséquence du large fossé entre la direction et le personnel. « La hiérarchie est loin de la réalité sur le terrain », m'a dit un travailleur d'Alstom. « Il y a un manque de confiance mutuelle. Les gestionnaires se sont adaptés, une fois ils étaient gardiens de prison. Maintenant, ils nous écoutent ». Un ingénieur de Caterpillar a fait remarquer: « Oui, on peut exprimer son opinion, si cela n'est que sur le travail, [mais il n'y a] pas de véritable liberté de la parole ».

Les conditions de travail se sont considérablement améliorées après la chute du communisme en 1989, mais ils sont encore précaires en Roumanie. Comme un travailleur a commenté: « Le renouvellement technologique est nécessaire. On ne pouvait pas continuer avec les anciennes machines ». En dépit de cela, une résistance au changement, en particulier chez les travailleurs plus âgés, est toujours présente: « Nous avons des problèmes d'adaptation aux nouvelles machines. Il y avait beaucoup d'accidents. Les machines sont complexes et exigeantes. Mieux travailler avec les anciens 'made in Romania' machines », soutien un ouvrier de 55 ans au Pipera. Il y a beaucoup de pression de la part de l'organisation pour apprendre et pour s'adapter aux nouvelles technologies. En conséquence, il est

nécessaire de s'habituer aux styles de gestion des étrangers et aux exigences de la concurrence et de la rentabilité. Un technicien de Miorita fait remarquer: « Il n'est pas nécessaire de réinvestir tous les bénéfices dans le renouvellement de la technologie. C'est également nécessaire de donner de l'argent aux gens ». Un autre dit: « mieux travailler avec le marteau tout en gagnant de l'argent en outre, que de travailler avec la machine et attendre ». Les employés roumains se plaignent de l'intensification du travail, de la fatigue, de l'insuffisance des salaires et de la menace du chômage. Selon les travailleurs au Miorita la situation est: « Certains d'entre nous doivent travailler le samedi ou même dix heures et plus », dit l'un d'entre eux. « Non pas tant l'effort physique, mais celui psychologique ». « Les salaires sont moins que l'an dernier. Ils baissent chaque mois. Beaucoup de travail. Peu d'argent », répondit un tiers.

Les travailleurs **roumains** sont de plus en plus en plus préoccupés par le statut de leurs emplois. Ils considèrent le chômage comme une menace permanente utilisée contre eux par la direction, et comme un instrument contre d'éventuelles revendications salariales ou autres plaintes au sujet des avantages. C'est pourquoi en Roumanie les travailleurs sont catégoriques sur un contrôle permanent de l'État sur les entreprises. « Ils [les propriétaires] peuvent dire: c'est mon entreprise, mes machines, si je veux vous licencier un emploi je le fais », a commenté un travailleur de Pipera. « Si l'entreprise avait restée propriété de l'État, il aurait été mieux. Les travailleurs auraient été plus puissants. Personne ne nous pourrait pas dire: « Dès demain, vous ne travaillez pas ici », a déclaré un technicien de Pipera. Dans l'ensemble, les travailleurs roumains semblent à préférer l'État en tant que patron permanent: « Pendant le régime de Ceausescu, nous avions de bons salaires. Ils sont restés bons et après la révolution, jusqu'à la privatisation », a commenté un travailleur de Miorița. Les salariés **roumains** décrivent des relations rigides avec la direction d'entreprise (encore plus qu'en France), et la hiérarchie est considérée comme créant des tensions dans l'entreprise. « Il y avait des moments où nous sommes venus avec plaisir au travail. Maintenant, nous y venons avec peur. Les chefs devraient être plus près de nous. Ils ont un mauvais langage ». L'autonomie du travail est à peu près inexistante dans la plupart des entreprises en Roumanie.

De leur côté, les **Roumains** associent le prestige attaché à une entreprise comme une entité objective en soi. Ils ont un sentiment de fierté quand ils parlent de ce qu'ils produisent. « La renommée est gagnée et mise à jour plus facilement dans une entreprise multinationale que dans une autre locale », dit un ouvrier de 29 ans, au Pipera. « Il y a une influence donnée par la reconnaissance internationale de l'entreprise, il y a également une pression plus forte et des exigences plus élevées pour lutter contre la concurrence internationale, et tout ça donne une manière spécifique de travailler », déclare un ingénieur de Miorita.

## CONCLUSIONS

Les conditions de travail sont des aspects objectifs faciles à évaluer. La représentation de ces conditions n'est toutefois, pas subjective. Elle donne une vision lucide sur la façon dont les gens sont employés dans des entreprises multinationales par rapport aux celles locales. Les groupes français et roumains ont reconnus une influence externe en termes de culture d'entreprise et de style de gestion. Alors que les Français se sont fortement appuyés sur l'idée de forcer leurs gestionnaires étrangers à agir « à la française », les Roumains se sont abstenus, craignant les représailles des patrons. Les deux groupes ont revendiqué l'instabilité des tâches et l'arrogance de la hiérarchie.

Les interviews ont confirmé notre hypothèse que les incitations économiques sont plutôt marginales pour les employés face aux incitations sociales (la sécurité de l'emploi). La formation interne et les autres mesures visant à améliorer les qualifications des travailleurs réduisent leur peur de perdre leur emploi. L'image du chômage comme une tragédie pour l'évolution professionnelle, ayant parfois des conséquences pour l'existence même d'un individu, est commune aux travailleurs roumains et français. Toutefois, les employés français pensent que le chômage est une caractéristique commune de la société, acceptable autant qu'elle ne se transforme pas dans un phénomène de masse.

La résistance des travailleurs contre les fermetures des sites, contre la délocalisation des usines ou contre les licenciements massifs est considérée comme un objectif primordial par les travailleurs français. D'autre part, ils apprécient que les pouvoirs publics ne doivent pas être impliqués en aucune manière dans les décisions de gestion d'une entreprise, sauf dans les situations de transgression des lois. « Les autorités ne doivent pas intervenir, sauf pour punir des actes illégaux », a soutenu un technicien de chez Caterpillar. « Les pouvoirs publics doivent intervenir que dans le cas de la menace de licenciements massifs ou de la délocalisation », a ajouté un travailleur de Becton.

La hiérarchie intermédiaire (chefs d'équipe) indique à l'ensemble des travailleurs les opérations et les procédures sur une base quotidienne. En général, les travailleurs roumains ont de très bonnes relations avec leurs collègues, mais tendues avec les gestionnaires dans les niveaux supérieurs. Par conséquent, l'incitation et la satisfaction du travail sont progressivement remplacées par la peur du chômage, entraînant un esprit pervers de compétition entre collègues. « Quand on se plaint, on nous dit: vous pouvez toujours aller voir ailleurs pour un travail si cela ne vous satisfait pas. Le patron nous menace qu'il y a dix personnes qui attendent d'être embauchées pour chaque emplois », a dit un technicien de Miorița.

Les relations qui sont réglées au sein d'un groupe de travailleurs donnent la caractéristique essentielle de l'identité de travail. La distance à la hiérarchie (soumission, obéissance ou autonomie) et aux collègues de travail (l'amitié, la collaboration, l'individualisme) influence la dimension sociale des salariés. Un certain « déficit démocratique » en ce qui concerne le dialogue dans l'organisation

(entreprise) est accusé aussi par les Français que par les Roumains. Les chefs d'entreprises sont des dirigeants qui emploient plutôt des mesures coercitives que des primes. Le spectre du chômage met une sorte de pression sur l'attitude des salariés qui se voient placés dans une compétition permanente et généralisée et qui trouvent très difficile à protester contre ce type de « chantage ».

La culture de l'entreprise est prise comme un élément fondamental, mais l'impact de la culture nationale est très souvent négligé par les chercheurs. Par conséquent, il est important d'examiner simultanément les cultures nationales, l'environnement social des entreprises et la culture de l'entreprise elle-même quand on étudie ces organisations. « Le fait de la diversité culturelle s'impose à tous. Et plus les modes de vie se rapprochent, plus les identités culturelles s'approfondissent. Et le génie de l'Europe consiste à essayer d'avancer en organisant la cohabitation culturelle, tout en tenant les deux dimensions contradictoires et complémentaires : le respect des identités culturelles et leur mise en perspective par rapport à un cadre politique plus vaste, celui de l'Union européenne. » (Wolton, 2009 : 43)

Le modèle du « melting-pot culturel » qui vient en accord avec les stratégies de développement des multinationales, confronté au modèle du « rêve commun » socialiste, ne doit pas remplacer les coordonnées existantes des représentations locales collectives maintenues par des siècles, mais il doit créer une prémisse pour une *weltanschauung* individuel de chaque citoyen du futur «village global ».

Le terrain qu'on présente dans ce texte met en discussion une nouvelle dimension qui peut s'ajouter à celles décrites par Sainsaulieu. Il s'agit d'une étude de cas sur une dimension culturelle en relation directe avec les représentations des salariés sur la marque de leurs entreprises. Pour les entreprises multinationales, cette marque – sa notoriété – représente l'indicateur principal du niveau de la compétition dans un certain domaine d'activité. Elle donne une motivation aux salariés, par l'intermédiaire du sentiment de fierté, mais elle pose aussi de la pression pour développer l'entreprise. À ce trait on peut ajouter l'impact de nouvelles technologies sur le travail. Ces technologies sont rapidement transférées dans toutes les filiales d'une multinationale – un processus qui a souvent des conséquences négatives sur l'adaptation des employés aux nouvelles conditions de travail. Et comme tous les produits de la culture matérielle, ces technologies révèlent les différences identitaires entre les gens d'origines variées.

Comme j'ai montré dans la première partie de l'article, les données obtenues au cours des entretiens font la preuve que les entreprises multinationales détiennent une importante dimension culturelle liée au rapport entre leurs identités collectives et les identités socioprofessionnelles de chacun de leurs salariés. Cette dimension est évoquée plus ou moins directement par les sujets des entretiens quand ils veulent expliquer les conditions et les relations de travail.

Les dirigeants d'entreprises multinationales ont tendance à dire que leur investissement étranger est dicté par les impératifs de la concurrence et du marché. Autrement dit, par des facteurs internationaux auxquels ils sont obligés de s'adapter, s'ils veulent maintenir l'efficacité de leur production ainsi que l'existence-même de l'entreprise. D'autre part, on peut facilement présumer que la recherche du profit

est la véritable cause de ces changements. Selon Blim: « Le monde est devenu une usine globale. La montée de cette nouvelle usine globale est marquée non seulement par la propagation de l'industrialisation à travers le monde, mais aussi par l'incorporation de vastes populations de travailleurs dans la nouvelle production et processus de fabrication de produits pour le monde capitaliste de marché » (1992: 1).

Les entreprises multinationales présentées ici semblent avoir une tendance à être plus sensibles aux changements dus à la pression économique sur le marché mondial, que n'est pas identique pour les entreprises nationales. Cela a été évoqué dans plusieurs entretiens cités ci-dessus, avec le corollaire possible que les entreprises multinationales ont tendance également de réagir plus rapidement en cas de faible croissance économique, par exemple en ajustant la force de travail en conséquence. Toutefois, il ne semble pas que la sécurité de l'emploi est sensiblement différente dans les entreprises multinationales, ce que n'est pas le cas pour les grandes entreprises nationales. Bref, le phénomène des multinationales apparaît partout dans le monde et l'analyse de ses effets sur l'emploi dans les pays industrialisés doit nécessairement trouver son complément dans une analyse des effets sur l'emploi dans les pays en développement. L'évolution vers une société dans laquelle les multinationales ajustent leurs grandes tendances actuelles concernant la population active aura d'importantes conséquences pour un nombre de professions et pour les normes de qualification.

Les effets de la multinationalisation des entreprises sur l'emploi sont aperçus en deux sens, du point de vue de la délocalisation et du point de vue de l'implantation, donc du pays d'origine et respectivement du pays d'accueil. Ainsi dans les pays d'origine on rencontre :

- a) *l'effet direct de déplacement d'emplois*, quand la production étrangère remplace la production nationale en domaine ;
- b) *création indirecte d'emploi d'accompagnement à l'implantation à l'étranger*,

Les effets sur l'emploi dans les pays d'accueil peuvent être :

<b>Directs</b>	la création automatique d'emploi dans le site d'une implantation
<b>Indirects :</b>	
a) macro-économiques	crés par les dépenses des employés de la nouvelle filiale
b) verticaux « en amont »	au niveau des sous-traitants et fournisseurs
c) verticaux « en aval »	parmi les revendeurs et les clients locaux
d) « horizontaux »	au niveau des entreprises locales concurrentes ou d'autres domaines.

« Pour s'en tenir à la question de l'extension du « micro » au « macro », l'une des manières de saisir l'impact du global à partir du local consiste à observer la manière dont sont vécues les transformations de l'économie mondiale à l'échelle d'une entreprise ou d'un quartier, à partir d'expériences individuelles, comme un ouvrier de chantier naval qui voit disparaître l'industrie où il a travaillé toute sa

vie.[...] L'étude de cas élargie ouvre ainsi l'horizon d'une ethnographie globale plus en phase avec les évolutions du monde. » (Abélès, 2008 :98)

Parmi les caractéristiques par lesquelles on surprend la dynamique économique actuelle on retrouve :

- a déréglementation et la restructuration des marchés dans la plupart des pays industrialisés ;
- a saturation des marchés et l'intensification de la concurrence, qui ont stimulé les entreprises à élargir leurs horizons vers l'Europe Centrale et de l'Est et vers l'Extrême Orient.
- Le développement du rôle des institutions internationales (le Fond Monétaire International, la Banque Mondiale, l'Organisation Mondiale du Commerce) et le renforcement des zones de libre-échange.
- La reconception du rôle de l'État nation et l'apparition de l'État région ;
- Le développement technologique et l'apparition de la « nouvelle économie » matérialisée par de nouveaux secteurs d'activité (les nouvelles technologies d'informatique et de communication, les biotechnologies, etc.). Cette tendance se traduit par la redéfinition des compétences, une très grande croissance des coûts de recherche et de développement, une réduction de la durée de vie des produits... ;
- L'orientation des stratégies de gestion vers une nouvelle logique des investissements dans l'activité productive (de la rentabilité à court et moyen terme) ;

Il est important de relier les cultures nationales, l'environnement social des entreprises et la culture d'entreprise elle-même. C'est pour ces raisons qu'on s'intéresse plus fort aux conditions de travail, aux relations sociales et à la façon de se rapporter au chômage des salariés des entreprises (phénomène commun dans tous les pays capitalistes). On a voulu extraire les aspects les plus intimes qui se retrouvent dans la vie des gens qui travaillent dans des entreprises multinationales.

La culture d'entreprise est fondamentale mais l'impact du national est trop négligé. La culture d'entreprise se situe du côté des valeurs manifestes et les pratiques et les comportements du côté implicite.

La faculté que les multinationales peuvent avoir – celle de transférer leurs activités d'un pays à l'autre – a aggravé la crainte que ces entreprises disposent dans une mesure considérable du pouvoir discrétionnaire d'intervenir comme agent indépendant d'allocation des ressources et des emplois sur un plan international. L'apparition relativement soudaine, d'un nombre de pays « nouvellement industrialisés » en Europe et Asie de l'Est devenus exportateurs notables de produits manufacturés (en partie grâce aux activités d'entreprises multinationales) a encore renforcé ce genre de préoccupations en particulier dans les syndicats ouvriers des pays industrialisés.

Certaines industries de biens de consommation des pays industrialisés, par exemple l'habillement, la chaussure et l'électronique ont en effet ressentis nettement le choc de la concurrence d'importations provenant de ces nouveaux pays industriels.

S'ajoutant à l'influence des entreprises multinationales, de nombreux facteurs de changement, y compris la modification de la structure générale de la concurrence sur les marchés mondiaux et la politique industrielle appliquée par des pays en développement, ont entraîné une restructuration internationale de l'industrie et du commerce. Cette restructuration s'est traduite par une croissance des exportations des produits manufacturés par les pays en développement.

Le phénomène de l'entreprise multinationale a évolué au cours des dernières décennies pour ce qui est de la répartition de ces sociétés selon l'origine nationale, ainsi que, dans une certaine mesure, selon le secteur d'activité et le lieu d'installation. De plus, sont également apparus des types nouveaux des relations des entreprises multinationales tenant à des éléments d'association, des accords d'entreprise à entreprise, des contrats de coproduction, des contrats de gestion, etc. Cependant, ces nouvelles formes d'activité des entreprises multinationales se sont manifestées principalement du fait que ces entreprises ont trouvé un environnement économique dans les pays en développement, comme dans certains pays de l'Europe de l'Est. D'un autre côté, dans les pays industrialisés c'est la propriété du capital, résultant soit d'investissements nouveaux, soit d'acquisitions d'entreprises déjà existantes qui a restée le lien principal entre des sociétés multinationales mères et leurs filiales à l'étranger.

À plus long terme on constate que les entreprises multinationales suivent et influencent à la fois, à des degrés variables, l'évolution dynamique sectorielle par la restructuration économique primaire, secondaire et tertiaire. On considère généralement cette restructuration comme un signe de maturation des sociétés industrielles et de leur passage à une ère postindustrielle. On constate de même que les entreprises multinationales sont étroitement associées à l'évolution à long terme des relations économiques internationales. Le processus de la restructuration à long terme s'est intimement combiné, ces dernières années, avec les effets de la récession sur l'emploi dans l'industrie.

Il est peut-être impossible de dire en termes statistiques quelle est exactement la proportion de ce changement structurel qui est respectivement dû aux entreprises multinationales et à d'autres facteurs plus larges. Néanmoins, il est bien évident, en particulier dans des périodes de ralentissement de la croissance économique, qu'il y a lieu de porter une attention particulière à toutes les variations de l'emploi, y compris celles qui résultent de décisions d'entreprises multinationales. Pour les entreprises multinationales comme pour les autres entreprises maintenir autant que possible leurs plans de main d'œuvre conformes aux politiques nationales, signaler suffisamment à l'avance les modifications de leurs opérations susceptibles d'affecter l'emploi, consulter de façon appropriée les autorités gouvernementales, les organisations d'employeurs et de travailleurs et les autres représentants des travailleurs constitueront autant de principes d'une grande importance sociale dans les années à venir. Il est également évident que, lorsque des politiques de main d'œuvre actives et bien développées seront appliquées dans les entreprises et dans l'économie en général, permettant d'anticiper l'événement plutôt que d'y réagir simplement, en particulier en ce qui concerne la formation et le recyclage, l'application



des tels principes peut contribuer dans une certaine mesure à une bonne adaptation sociale aux changements, quelle qu'en soit l'origine.

L'évolution vers une société dans laquelle les compagnies transnationales vont régler les tendances majeures concernant la main d'œuvre aura des grosses conséquences sur la professionnalisation et sur la qualification. Elle peut conduire :

- d'un côté vers la recherche d'une polyvalence qui puisse couvrir la maîtrise des outils techniques, les qualités relationnelles et l'expérience ;
- vers des capacités nécessaires pour faire face à l'individualisation des tâches dans le processus du travail : la capacité de se situer dans un univers en mouvement sinon virtuel, où les relations hiérarchiques classiques n'ont plus le rôle de la transmission des informations, mais elles doivent se recentrer sur la mobilisation et le maintien de l'esprit d'équipe, sur la gestion et la distribution de connaissances.

De ces raisons, dans une perspective macroéconomique, ces transformations laissent la place aux changements complexes et radicaux. On peut révéler le caractère singulier de la diffusion de l'innovation technologique actuelle. Si les courants de modernisation et les révolutions technologiques des années '50-'60 ont été accompagnés d'un recrutement de main d'œuvre moins qualifiée, les tendances globales actuelles indiquent en plus un phénomène considérablement à l'envers. Il est encore difficile à dire s'il s'agit des tendances de longue durée, traduction en termes d'emplois d'une nouvelle ère de croissance économique, où les entreprises agissent par méfiance, embauchant un nombre limité de personnes mais avec une haute qualification, pour faire face aux tendances imprévues d'un milieu incertain (l'évolution des marchés, la réaction de la concurrence, mais aussi l'incertitude dans le plan des besoins de main d'œuvre dans les nouvelles modalités d'organisation de la production).

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*Parenting after the century of the child. Traveling ideals, institutional negotiations and individual responses,*  
(Eds.) Tatjana Thelen and Haldis Haukanes, Oxford and New York, Berghahn books, 2010,  
231 pp., ISBN 978140901117, 55£.

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The book I review here is a collection of sociological studies that gives further insight on the complex settings of parenthood and childhood in the new millennium. The main argument of the book, as described in the introductory chapter, is that the emerging “globalised childhood” cannot be defined without a corresponding “globalised parenthood” for both are simultaneously defined and negotiated in specific institutional arenas (p. 2). As these ideals are no longer subscribed to a specific geographical area, they become mobilized and travel great distances ultimately creating the illusion that they are universal. The collective goal of the authors is to provide vivid examples of the different stages of this intricate journey: from global ideals to individual responses through personal and institutional negotiations.

The preliminary stage of this journey – setting the boundaries – is depicted in the first part of the book: Traveling ideals about relatedness, family, and parenting obligations. Focusing on the case of urban Japanese mothers, Susan D. Holloway, Yoko Yamamoto and Sawako Suzuki explain in Chapter 3 how “the mother has turned around so that the child no longer has to look at her back” (p. 49), a shift from the old “good wife, wise mother” cultural model that young mothers of today struggle to maintain while actively searching for different self-defining activities outside the family perimeter.

In Chapter 4, Erdmute Albdler talks yet of another shift, this time surrounding the kinship-based child fostering practices in northern Benin. In her socio-historical approach she argues that under the modernizing influence of the French, biological parents adopted a predominant role in shaping their children’s future: foster parents, selected from close rather than distant kin, were chosen due to their liaison to urban life in order to maximize young boys’ chances for access to schooling. Subsequently, agricultural and rural setting of the Baatombu tribe in West Africa became increasingly gender biased.

In terms of biases, Haldis Haukanes and Marit Tjomsland express more than one in their study of young Czech’s and Tunisians life-scripts. Initially designed as a test of compliance to global models of family life via media consumption, the results highlight a preference for the nuclear family model based on a growing awareness of national conditions and challenges. Not only are these young people “growing up nuclear” but they also acknowledge their supportive role for aging parents, a topic lacking visibility in both social research and mass media representations.

The second part of the book brings to focus the difficult task of matching principle and practice. Using Rabinow and Rose’s definition of bio power, Esben Leifsen is interested in determining the circumstances that shape interactions between welfare institutions and the metizo population of Quioto, Ecuador. In local context, the dynamics of people and relationships that child rearing entails has long surpassed family planning in terms of interventions schemes. Practice imposes a relational fixity as a preliminary condition to care providers. Mothers, on the other hand, live in a constant state of relational fluidity that undermines their chances of being considered a suitable caretaker for their children. Objectives are only agreed upon when informal practices fail.

Tiffany McComsey adopts in Chapter 7 a longitudinal perspective on child care transferences as manifested in the intergenerational experiences of child removal practices in Australia. The results of her study underline that changing the “best interest of the child” paradigm to incorporate aboriginal cultural identity has lead to ambivalent practices and various tensions between family members. Negotiation over policies and practices is easily found in educational institutions as well. The focus here changes slightly and parenthood is underlined in the following chapters.

ANN. ROUM. ANTHROPOL., 48, P. 107–112, BUCAREST, 2011

Tatjana Thelen's article on the paradox of school reform in eastern Germany revolves around the conceptual unity of individualisation-privatisation-modernisation. The notion of individuality has evolved differently in the case of parents versus children. Late entry in the labor market, extended schooling and lack of knowledge in one's abilities determined an increase in parental obligations and fragmented bibliographies for children. Since this is the rule rather than the exception in western modern society, the author questions the modernity of the western model, giving the dependencies it accentuates.

Another type of opposition to modern standards is described in Marta Bertran's study on immigrant practices of parenting in Barcelona. Observing interactions between native and immigrant mothers in two settings, the author reveals the positive opinions associated with immigrant mothers' knowledge and practices in care taking. Deprived of the moral and practical support of extended family ties, young Spaniard mother gradually become depended on professional advice which is not likely to incorporate alternative views on child rearing.

The last part of the book takes a step forward and examines the rationale behind the traveling models of childhood and parenthood. Two cases are presented: implementing support for children in the Kilimanjaro region and mediated support for children in divorce trials. Randy Frances Kandel and Anne Griffiths (Chapter 10) examine the incompatibility between the child's autonomy rights and their legal status as minors. The "best interest" approach is intransigent and to surpass it, children have to manipulate relationships with mediators and parents to various degrees of success.

The final chapter of the book argues in favor of extended family systems and local communities in crisis situations such as the HIV/AIDS orphans in the Kilimanjaro region. Mai Bente Snipstand and her collaborators illustrate the individualization of children's suffering will only introduce further division in a community in desperate need of social control and socialization, with an emphasis on reducing antisocial behavior.

As a conclusion, the book provides real life examples that "traveling" ideals of childhood and parenthood have trouble "settling" in specific local contexts. Individual responses are mostly negative since negotiations on child caring responsibilities and obligations begin on unequal terms instituted by international legislation inadequately equipped to handle multiple local interpretations. I believe this book will provide social researchers with multiple areas to investigate, particularly on the actual need to have a singular model for childhood deemed as "the right one".

**Frank Uekötter, *The truth Lies on the Field: a Knowledge History of the German Agriculture*, Series "Environment and Society", Vandenhoeck & Ruprecht, Göttingen 2010, 524 pp., ISBN-10: 3525317050, ISBN-13: 978-3525317051. EUR 49,95.**

Reviewed by Valentina Roxo  
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Hardly any other sphere of German society has been as much transformed by scientific and technological progress as farming: A pre-modern agricultural society on the edge of starvation has turned into a society of industrialized farming, making food abundant. At what price? Frank Uekötter looks at the development of agriculture from the 19<sup>th</sup> century to the present and analyzes the system of knowledge, which underlies the environmental challenges faced by today's German agro-industrial complex. His book opens a first German-language interdisciplinary series of high-quality monographs and edited volumes of environmental research within the humanities, with a special emphasis on environmental history.

Out of the enormous thematic spectrum associated with the agrarian knowledge society, Uekötter has chosen the agricultural soil as the case study. The author argues, that no other matter in

the entire history of farming has undergone such intense cultural transformations. And barely any other field in agricultural research offers such a broad methodological palette. But what keeps both the author and his readers thrilled about this case study is the mystery of agricultural soil, which has challenged the knowledge society throughout its development. In the notion of “knowledge” Uekötter includes the practical know-how, generated by farmers. The author portrays the farmer’s job not merely as a physically hard activity, but more as an enormous intellectual challenge. The author acknowledges, however, that farmers despite constantly broadening their expertise in biology, veterinary medicine, engineering and management have had an astonishingly primitive understanding of soil, which they perceive as a nutrient reservoir.

Precisely such nescience and uncertainty, concludes the author, have become the normality of the modern intensive agriculture, which explains the inconsistency of the ecologisation process in modern farming. Uekötter concludes, that the main characteristic of the today’s agrarian knowledge society is the rampant nescience of the agricultural soil. And this ignorance Uekötter interprets as a product of a long social interaction. Thus, the study contributes to the interdisciplinary debate on the ignorance in agriculture, on the farming related agnotology.

The form, which the agrarian knowledge society has acquired over the 20<sup>th</sup> century, explains why German agriculture has been unable to make any “absolutely right” decisions. Uekötter’s epistemic history of the agricultural soil shows, that the “simple and wrong” decisions dominated over “complex and right”. Nevertheless, it is this agrarian knowledge society who we are to thank for having defeated hunger in Germany and replacing it with food abundance in the long run.

This epistemic study benefits agrarian history as it shows life of people working in the agricultural sector, including their daily activities, decisions they make and do not make as well as the institutional networks involved. Particularly its close look at the everyday reality of agricultural managers makes Uekötter’s work a vital contribution to agrarian history, which still tends to merely incorporate studies on history of agricultural policy and on economic history. Thoroughly researched and cogently argued, this book should be read by agrarian and environmental historians, and most especially by scholars in search of new and innovative research projects in these fields. Besides, this is an exciting literature for all those following the debate on EU agricultural policy as it demonstrates that German farmers are not just “subsidy junkies”, but highly knowledgeable and devoted professionals. It is high time for this book to appear as today’s knowledge intensive agriculture, whose birth and coming of age Uekötter traces in this study, still remains invisible to the consumer.

**Johannes Stahl, *Rent from the land. A political ecology of postsocialist rural transformation*, Anthem Press, London and New York, 2010, 151 pp. with 27 Maps and Photos. ISBN-10: 1843318369, ISBN-13: 978-1843318361, US \$99.**

Reviewed by Stelu Șerban  
Institute for Southeast European Studies, Bucharest

After twenty years, the breakdown of the socialist regimes in Europe was symbolically celebrated in many of the former socialist countries. They have scrutinized the change in the political institutions, economy, international relations, and other related fields. Still, the everyday life of the people in these countries was a rather discrete topic. The books like Johannes Stahl’s pay attention exactly to this subject.

The Stahl’s volume bases on the researches the author has carried out in 2004 in three neighbor villages in southeastern Albania: Kodra, Bagetia, and Dardha (the names are fictional, see note 1, p. 121). The villages locate in an area circumvented by Korcha and Pogradec towns. It was the author intention to choose these villages by taking into account their cultural and ecological differences.

Thus, while an ethnic Albanian population lives in Kodra, the natives in Bagetia are Vlachs, whereas Dardha is a Slav Macedonian settlement. Kodra has also a bigger surface for cropland, whereas in Bagetia and Dardha the forests and pastures cover almost all the agricultural land. On the one hand, the strong control of the economy in the socialist time whipped out these differences. On the other hand yet, after 1990 in Kodra the cooperative farm has been maintained, while in Bagetia and Dardha the land almost entirely passed in the individual use (pp.12, 24–27).

Stahl spent most of his research time in these villages, he has learnt Albanian, and became very close to the native people. Several anecdotes and stories of his fieldwork color the book. Yet, his theoretical perspective is not an anthropological one. Stahl mentions at the very beginning that this perspective is of *political ecology*: “a perspective in which environmental change results from land users’ objectives and the constraints imposed on their productive activity by the macro context of political economy” (p.6). Within this frame, Stahl defines the key concepts as *rent*, “an analytical tool to describe and explain land users’ incentives and practices. Rent is the return from control over access to anything scarce and valuable” (p. 3) and *access* to the resources (pp.7–8). Access to the resources expresses the power distribution over the land, labor, capital, and/or market (he quotes the works of political ecologists Jesse Ribbot and Nancy Peluso).

Stahl divides the book in eight chapters (s. pp.12–14). After the first chapter, where the author defines the theoretical prerequisites, and the second one, in which Stahl sketches the features of the socialism in Albania, it follows the weight content of the book. Stahl delineates in the third chapter four patterns that deeply have influenced the rural transformation in Albania: i. land fragmentation, ii) intensification vs. extensification of the land, capital, and labor between the villages, iii) intensification vs. extensification of the access to the land in the case of each village, and iv) forest degradation. These patterns are approached one by one in the next four chapters, while in the few pages of the chapter eight the author strives to argue that the rent concept illuminates the manifold aspects of the human – nature/society – environment relationships.

It has to be mentioned that for collecting the data Stahl made use mainly of quantitative methodologies. The land fragmentation data comes from “the satellite images and other visual observation”. The author describes the intensification vs. extensification of the land use between the villages by using “productivity data obtained mainly from the agricultural offices of the communes”, while for the same dimension in regards to each village Stahl has used “participatory land use maps”. The data for land deforestation were extracted by the “statistics from the District Forest Service of Pogradec” (p.29).

Noteworthy, the author put it in the second chapter the features of the Albanian socialism: “isolation, poverty, repression, and ideology” (p.15). As consequences, a severe rationalization of the family consumption of the goods (pp. 20–21), as well as dramatic change in the rural landscape (the forestland decreased by 20% between 1959 and 1993), have occurred. The fall of the socialist regime was accompanied in return by an “extraordinary orgy of destruction” (p.24).

In the third chapter (pp. 29–46) Stahl defines the patterns of the land use in post-socialist Albania. In regards to the *land fragmentation* it is noted the abrupt decrease of the size of the cultivated plots, as well as the land degradation (erosion), the crush of the irrigation system, and wastes in the quality of environment. *Intensification* vs. *extensification* means the increase vs. decrease of the allocation of capital and/or labor per unit of the land. The author sketches the situation in this respect in each of the three villages, Kodra with high degree of intensification opposes to Bagetia and Dardha, and outlines that this state reflects the thorough situation in Albania (p.38). Still, a common pattern to using the land can be discerned in these villages: while the land use is more intense in the areas close to the villages’ centers, to the fringes the land cultivation decreases. Except for the vineyards, all the remotest plots of land are transformed into the pastures or even abandoned (p.41). Finally, the comparison of 1990 and 2004 years shows a dramatic rush of forest exploitation, that went, at least in the cases of Bagetia and Dardha to a severe *deforestation* (see the maps at pages 43–45).

At the beginning of the fourth chapter (pp. 47–64), Stahl emphasizes the peculiarity of the land reform in Albania. Neither the pre-socialist land ownership was respected, nor has the rationale of developing the agriculture been aimed. To the threefold pressure of the former socialist local leaders, pre-socialist owners, and rural individuals, the government opted to divide in equal shares the arable land and distribute it to all rural dwellers (p.48). As a result in 2004, not less than 440,000 families operated 1.8 million parcels, with an average of 1.5 ha per family.

Stahl outlines the ways of land de-collectivization in the case of each village. Despite their vicinity and the effects of the socialist control, significant differences arise in each case, a state that reflects the thorough situation in Albania. In the case of Bagetia even, the Land Law was ignored at the very beginning, and people decided to reconstitute the land to their original owners. The attempt of the officials to enforce the Law Land has been failed, few peoples barely fighting for their ancestral rights like the case of Maks Dulellari. Many of them have chosen to emigrate abroad.

The land fragmentation has been maintained and became the most obvious feature of the rural economy in post-socialist Albania. Its causes are yet manifold as Stahl notes it. The governmental instability as well as circumstantial situation like the crash of the pyramidal schemes goes hand in hand with the deep change of the people incentives toward subsistence. However, new frames for collective action are still possible. In Kodra, for instance, the people successfully cooperate with international NGOs and associate in the commercial cooperatives, as well.

Chapter five (pp. 65–80) significantly entitles “unraveling the socialist countryside”. The egalitarian wishful thinking of the socialist time faded away and differences amongst villages became visible and effective concerning the land use. The villagers’ incentives in regards to the use of land, labor, capital, and market differentiate too. Thus in 2004, in Kodra the population number has meaninglessly changed and the revenues from agriculture revolved around 17%. In comparison, eight per cent from remittances and 69 per cent from off-farm activities constitute the income of local people. Off-farm activities refer mostly to the outmigration to the nearby towns or to Italy and Greece (p.69). In Bagetia, almost three quarters of population left the settlement, mostly for Greece, because the active policy of the Greek government to assimilate Vlach population. The remained people in Bagetia gain their incomes from seasonal work migration (44 percent of the households), state (32 per cent by salaries, social assistance, and pensions), and agriculture (24 per cent). The population in Dardha did not change, but not less than 70 per cent of the households had at least one member seasonally working abroad (most of them in Macedonia). Stahl investigates the causes of this differentiation by analyzing the ethnicity, access to the market, and biophysical conditions and emphasizes sensitive differences in regards to the income, productive assets, and political influence.

In chapter six (pp. 81–96), the author aims to show how these differences reflect upon the access to land, labor, and capital in the case of each village. He gives several examples that illuminate the mechanisms of access. Stahl invokes in the ending part of the chapter the spatial theory of the 19<sup>th</sup> century economist J.H. von Thünen. Thus, Stahl attempts to explain the main commonality of the land use in the three cases, e.g. that the most intensive uses of land finds in the center areas, while the remotest fields are extensively cultivated or even abandoned.

Chapter seven explores the forest exploitation (pp. 97–116). Forest is the most valuable type of land in Albania as around 70 percent of the population depends on wood consumption for heating and cooking. On the one hand, the restitution laws aimed to reconfigure the historical rights over the forest. However, as in 1944 the state had owned not less than 92 percent of the forests (p.100), these laws had insignificant effects. On the other hand, by getting ‘full’ ownership, the state authorities have attempted to establish a strong control over the access to the forest. They failed yet. Stahl analyses the story of this failure as a form of ‘peasant resistance and custom’ in Kodra, ‘anarchy and communal management’ in Dardha, and ‘massive logging and state corruption’ in Bagetia.

Chapter eight (pp. 117–120) briefly retakes and summarizes the effects of the four land use patterns in differentiation the rent and access in the three research cases. The chapter ends with comments and suggestions regarding Albania’s accession into European Union.

Whether the 1990s were the happy era of ‘transitology’ in studying the post-socialism, in the next decade the perspectives of transformation and path-dependency steadily got the room. Stahl’s

book fully illustrates this shift of outlooks. The fieldwork he did and the exhaustive statistical data contribute to an in-depth analysis of rural Albania. Still, in the title of the book the reference to Albania misses. It seems thus, that the author strove to work out a more general analysis and theory of the post-socialist rural transformation. There are indeed few places in book when he suggests the three villages under study could convey one broader situation in the former socialist countries. Yet, as the bibliographical references stops to Albania's case and an accurate comparison misses, this remains only a guess. Another vulnerable point of the book is the way Stahl delineates the four patterns of changing the land use. Their theoretical analysis is scarce and let the impression that the author has randomly chosen them.

Notwithstanding these observations, Stahl's volume is a valuable piece of work in regards to a post-socialist country as Albania. The freshness of fieldwork observations and significant details make alive the picture of one country that often is perceived as gloomy, poor, and uncivilized. No less remarkable is also the author's attempt to put the Albanian case in the frame of the political ecology discipline that represents so far an innovative endeavor.