

UDK 911, 3:33 (497.5)

Primljeno (Received): 20.12.1994

Prihvaćeno (Accepted): 25.3.1995.

Izvorni znanstveni članak

Original Scientific Paper

## GEOGRAPHIC ASPECTS OF INDUSTRY -TOURISM RELATION (TOWNS OF UMAG AND BUJE AS RESEARCH MODELS)

Dragutin Feletar, Adolf Malić and Zoran Stiperski

Within the process of industrialization, expansion of industry into geographic space is in constant dispute with human environment. This means, that a correlation between industry and tourism is very strong, but mostly in negative sense of the word. This article has a developed methodological basis for geographic aspects of the industry-tourism relation, above all in views of industrial geography. We have also given an example of such a relation, shown on a model of 2 municipalities of Istria- towns of Umag and Buje, as presented in a students-conducted poll.

### **Geografske osnove odnosa industrije i turizma (na primjeru Umaga i Buja)**

*U okviru procesa industrijalizacije, širenje industrije u geografski prostor u neprestanoj je zavadi s čovjekovim okolišem. To znači da je i suodnos industrije i turizma vrlo snažan, ali uglavnom s negativnim predznakom. U ovom je članku razrađena metodološka osnovica geografskog proučavanja odnosa industrije i turizma, prvenstveno iz perspektive industrijske geografije. Uz to, na osnovi ankete koju su proveli studenti, dat je primjer toga odnosa u gospodarstvu općina Umag i Buje u Istri.*

### **METHODOLOGICAL BASIS IN RESEARCH OF INDUSTRY-TOURISM RELATION**

In order to prevent industrial development from harming the balance in nature as much as possible, entire mankind has adopted adequate, non-excessive use of space, as one of the main axioms of human progress. In regard to this, more and more of space is given to recreational purposes and tourism throughout the world. However, parts of touristically attractive areas and locations, especially seaside and coastal area, are interesting

for industry as well. The process of industrialization has struck coastal belts all over the world. Cohabitation of both industrial and tourism trades in one area, and their mutual use of the same space, has indeed become a growing process, in the beginning of a post-industrial age, when the structure and the shape of industry is significantly changing<sup>1</sup>.

Although on the surface industry and tourism are antagonized, both trades have

*1. W. Gaebe (1989), Industrie und Raum, Koeln, pages 189-193; D. Feletar (1991) Geographic Basis of Study of Relation between Industry and Environment, Radovi 26, Zagreb, pages 47-58.*

been developing "in the neighbourhood", close to each other, and with mutual respect, even during the second industrial revolution. This respect and interlaced development ties have significantly risen in the changes that post-industrial age has brought. Industry is now more keen on using light materials, recycling processings, with new acceptable image (very often industrial plants resemble big hotels). More and more industrial trades have business relationship with hotel industry. Of course, these modern changes are very slow, especially in less developed countries, including Croatia as well. Location factors of a startup and further development of industry, and especially spatial layouts, are being essentially changed and more acceptable to demands of ecology<sup>2</sup>.

Since there is more intensive interrelation between industry and tourism, both in inevitable touching in space, and in growing business and other ties, now there is a need in industrial and in tourism geography, to have methodological basis to research this phenomenon. In industrial geography, in the complex of industrialization processes, or rather, in industry influence on transformation of other trades, there has been noted a need to study and research the relation between industry and tourism.

However, this interrelation, in areas of tourism undoubtedly becoming more complex and more urgent, has been covered very little in recent geographic literature. Even the textbooks of tourism have been avoiding this issue more or less<sup>3</sup>.

The processes of industrialization have been influencing all aspects of life, and therefore are present in the major recreational and tourism areas. This is of course applied to the coastal belt, and there it's virtually unstoppable process. "Infiltration" of industry is especially important, and even less "visible", on the

brink of post-industrial age, when industry was restructuring. Therefore, the need to study and conduct a geographic research of the relation between industry and tourism is becoming more stronger. It is needed to at least establish elementary geographic methodology to study this phenomenon, in order to provide development and improvement of methodology<sup>4</sup>.

This article is offering one of possible methodological schemes of geographic research of industry-tourism relation. However, this field of research is barely touched, and scientific articles and papers, covering this topic, are scarce. The methodological scheme, or necessary sequence of research in studying industry-tourism relation, has its own logic, its geographically motivated basis, and is to be considered in its entirety. Still, this approach is to be questioned, and represents only one of methodological varieties to be used in research of this phenomenon.

We believe, that the interrelation between industry and tourism is very complex, with many layers, and quite delicate. It needs to be reviewed from as many sides as possible, multidisciplinary with further development of spatial, processing and functional approach. In the first stage of the methodological approach, in study of industry-tourism relation, it is necessary to research and determine level of mutual influence of one industry on another, and the level of development of each. This means, that we need to provide exact and relevant data, even with relevant quantitative statistical methods, determine the level of development of industry and tourism, in the field

2. I. S. Lawry (1963), *Portrait of a Region*, London;

Z. Siljkovic (1990) *Industry as a Factor in Degradation of Environment - as shown on the model of Zagreb*, pages 23-41

3. I. Blazevic, Z. Pepeonik (1989), *Tourist Geography*, Zagreb

4. D. Feletar (1985), *About Scientific-Methodologic Basis of Industrial Geography*, *Geografski glasnik* 47, Zagreb



Picture 1. Scheme of a methodologic sequence of geographic research of industry-tourism interrelation (Feletar, 1995)

*TOURISM* 1. Elements of level of processes - volume - structure - spatial disposition 2. elements of dispute - microlocation - ecology - physiognomy - source of manpower 3. elements of cooperation - equipment markets - consumer goods and foodstuffs markets - seasonal complement in hiring new labour - building of infrastructure 4. Restructuring and creation of a tourism-industry oriented region

Slika 1. Shema metodološkog slijeda geografskog proučavanja odnosa

of research. After that, it is also needed to develop the structure and spatial layout (elements of concentration and dispersion) of

these two phenomena in a defined geographic space. This research will prove the importance or ponder of industry and tourism in a

defined space, and relate certain elements of their interrelation, both in positive and negative sense of the word. A special importance is given to the studying of spatial layout of the two phenomena, and elements of their spatial interlacing into one another.

In the second stage of this research, according to our hypothetical methodological scheme, it is needed to study and research the elements of dispute between industry and tourism. They were much more obvious in the classic second industrial revolution, rather than in the post-industrial age. Indeed, there are numerous examples of negative influence of industry and tourism interlacing; their evaluation of space and its use is essentially different. This complex class of industry and tourism in future should be fixed into research and acknowledgement of several key problems:

1) their relation in a microlocation, where it is a necessity to (up to a point) make distance between industrial from tourism premises, with careful consideration of each location, planned on a scientific basis.

2) further taking into account ecology issues, meaning that industry structure is fine-tuned with delicate needs to implement environmental protection within tourism-oriented area

3) further development of physiognomy pollution by industry within a landscape or submission of architectural-visual level of industrial plants and premises to surroundings and environment of tourism-oriented area

4) further resolving the problem of seasonal lack of manpower, lack that both industry and tourism suffer from, on the Adriatic coast, and both trades are in conflict over the same issue very often. Of course, all these listed elements of dispute between industry and tourism can be further specified by rele-

vant quantitative-statistical methods and valid cartographic display.

In the third stage of research, it is needed to mark basic elements of cooperation and complementary production of industry and tourism. In modern development processes of tourism, and in crucial positive restructuring of industry, there is more and more signs of cooperation between these two antagonized trades. For further development of tourism it is vital to have:

1) a solid industrial market to supply tourist equipment, the production which can be organized in vicinity of tourism-oriented areas nearby its objects and premises.

2) it is also important to have a solid market and supplies of consumer goods and food-stuffs, needed for functioning of tourism, especially during tourist season.

In regard to this, an industry that would produce whatever is needed in tourism, could be playing an important role. Moreover, complementary use of manpower during tourist season is most important for a normal life and economic development. In this respect, we have important examples, where both trades, industry and tourism, are incorporated within one company, a holding or a corporation, in order to secure best effects of evenly distributed, and more effectively organized annual production.

And finally, industry and tourism have mutual goal and common interest, in building jointly necessary infrastructure, which is most vital for any town, and any trade.

There is no need to point out, that all the above stated elements of industry-tourism relation should be studied and researched, above all in geographic sense, spatially as a process. All the changes in landscape, structure of an area allow implementation of the fourth methodological stage, being mutual influence of both tourism and industry on re-

structuring of both trades. It also means creation of such changes in a certain geographic space, that there are elements of creation of a specific tourism-industrial or industrial-tourism region.

However unacceptable, or even annoying this may sound, today indeed we have numerous tourist areas, and especially by the sea coast, that have become specific tourism-industrial areas. They are functioning better and better every day, with their symbiosis logical and inevitable. Moreover, in many such areas it is the industry, that makes a bigger, major part of national income, although physically almost invisible in the geographic environment. In post-industrial era, functions of both industry and tourism are becoming more and more interlaced and coordinated, and new industrial and research capacities location, that in the second industrial revolution were unthinkable<sup>5</sup>.

### THE REGION OF BUJŠTINA AS A SPECIFIC TOURISM-INDUSTRIAL AREA

The western coast of Istria is touristically the most developed area of Croatia, thanks to its natural, geographical, cultural and historical, traffic-geographic and other advantages. Tourism-oriented evaluation of this area can compete with those in touristically most developed countries of the Mediaterranean. We have tried to prove what has actually happened in this region, by applying (up to a point) previously mentioned methodology, in the region of the town of Buje, located in the northwestern part of Istria. This particular region has been exposed to extraordinary changes and transformations into tourism and in entire economy.

This region of Bujstina, being an agricultural area (with minor contributions of fishing and marine industry) in the last 30 years has

been turned into a distinctive tourist region, centered on Umag riviera (from Savudrija in the north, to Novigrad in the south). Since the beginning of the century, apart from agriculture it has been developing manufacture and industry as well, especially the final agricultural products and fishing industry. However, tourism has emerged as a new industrial trade, which has had an unexpected growth and drastically changed the economic and geo-demographic structure of this region<sup>6</sup>.

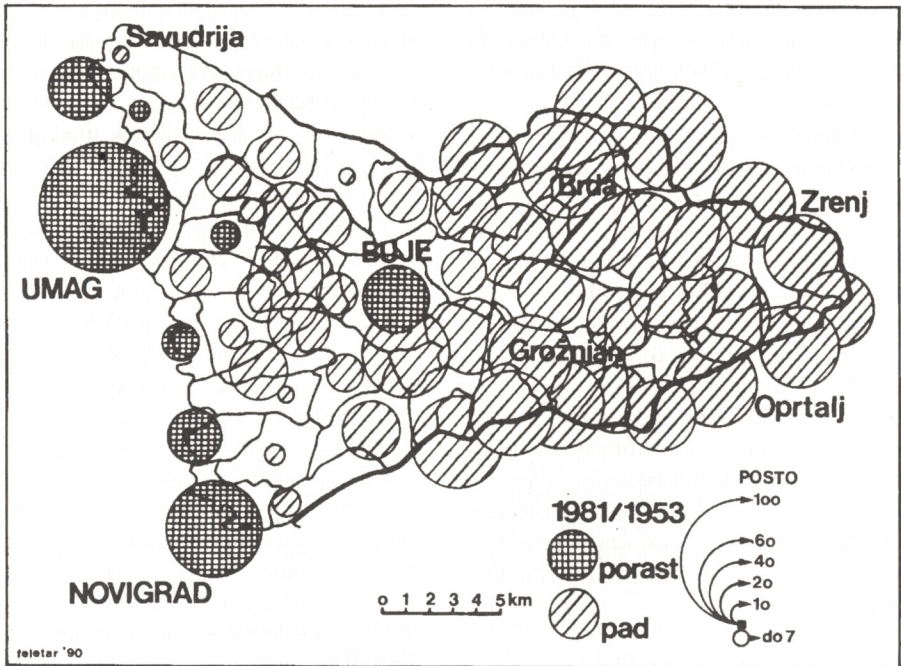
The riviera of Umag in 1966 had 32.995 tourists, that occupied 297.033 beds in that season. In 1989 these numbers went up to 563.020 tourists, and 5.573.528 beds for the season. Due to the Patriotic war, these numbers decreased in 1993 to only about 30 percent, and in 1994 to only about 55 percent of the 1989 traffic. However, Istria is the region that has regained its tourism propulsion better than other regions of Croatia. In regard to such tourism development, being the main industrial trade of the region, elementary structure of employment in the region is the following:

Municipality of Buje (a large area) in 1989 maintained 30,5 percent of total employment rate belonged to industry, 39,5 percent to tourism and commerce, 5,3 percent to agriculture, 2,6 to constructions, 4,8 percent to traffic, 2,9 percent to crafts trade, 14,4 percent to other tertiary trades. Total industry had 3.045 employees, producing a one third of the national income of the municipality of Buje, in that period.

Therefore, tourism and industry have be-

5. I. Cifric (1990) *Ecological Adaptation and Sociologic Reasons*; K.H.Hilman (1981) *Umwelt und Wertwandel, Frankfurt/Main-Bern*; H.Markl (1966) *Natur als Kulturaufgabe, Stuttgart*; M.Lenartić (1985) *Ecology and Industrial System, Jesenice*

6. *Statistical annual reports for the years of 1967 and 1990, Zagreb*; data acquired from municipality of Buje, *Economy and Statistics Dept, in Buje*



Picture 2. Changes in spatial layout of population in settlements of former municipality of Buje, 1953 to 1981  
 Slika 2. Promjene u prostornom rasporedu stanovništva u naseljima bivše općine Buje od 1953. do 1981. god.

come the main sources of development and progress in the region of Bujstina, creating a complex interrelation in positive and negative sense of the word. New economic structure, with leading tourism and industrial growth, has brought to Bujstina significant demographic, spatial, economic and ecological changes. In tourism, catering and commerce trades of Bujstina (former municipality) in 1989 there was 3500 employees, and another 3045 in industry, which totalled to about 70 percent of entire working population. They, as a social group, have completely different needs from the employees in the primary sector. Therefore, major changes in geographic space have been introduced - especially in change of spatial view of settlement growth of

the level of migration (especially in daily migrations), improvement of qualifications of the population, intensifying of urbanization processes and entire treatment of spatial use.

In transformation of the region of Bujstina tourism and industry have a combined influence (along with others, including geostrategic and political reasons). These contemporary changes are the most obvious, expressed by the inevitable process of coastal area taking over: the coastal area is taking over the main economic, urban and demographic role in the entire region. In a relatively short period, a new spatial image of settlements has emerged, with high rate of depopulation and demographic decrease of population in the inland areas, with increase of population in

Table 1. Population and number of employees in Bujstina municipalities

*Tab. 1. Stanovništvo i broj zaposlenih u općinama Bujštine*

MUNICIPALITY	POPULATION IN YEARS			NUMBER OF EMPLOYEES	
	1948	1971	1991	1981	ESTIMATE 1994
BRTONIGLA	2414	1409	1343	460	500
BUJE	7507	4234	5356	1654	1500
TOWN OF BUJE	2315	1967	3200	1104	110
GROZNJAN	3735	1147	906	153	150
NOVIGRAD	2146	2174	3087	744	700
OPRTALJ	4028	1533	1073	220	200
UMAG	7407	7192	9775	2756	2600
TOWN OF UMAG	1770	3192	4838	1587	1550

Source: Years of 1948, 1971, 1991 Census roll

the coastal areas. Each one of the settlements of the inland Bujstina region (except for the town of Buje itself, saved by the growth of industry) has a high rate of population de-

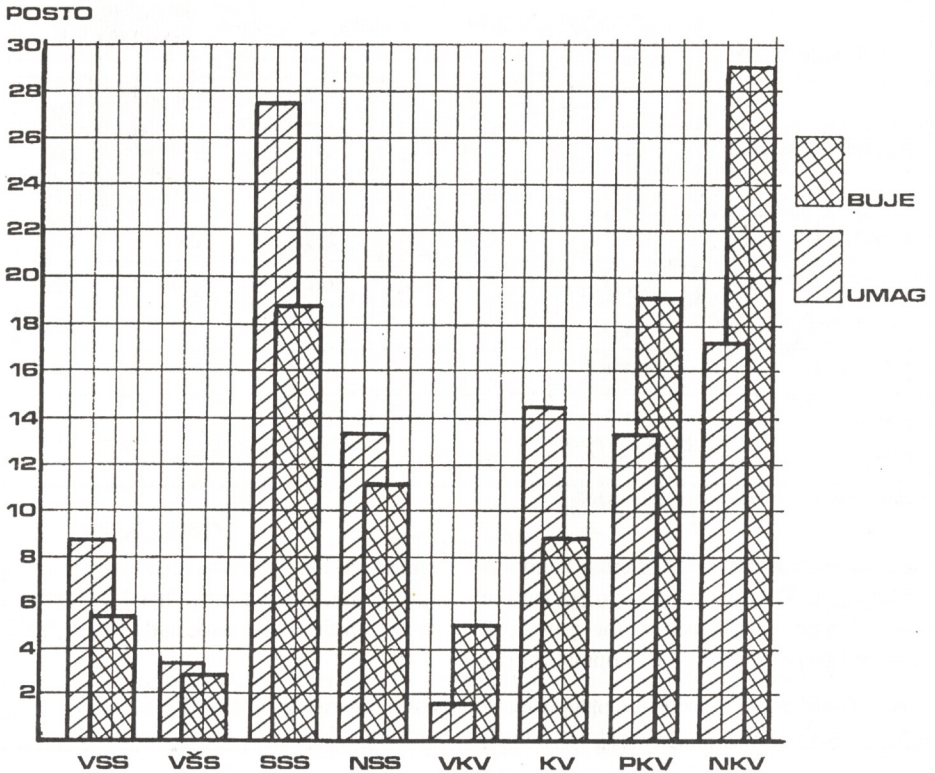
crease, with population getting older at high speed rate. On the other hand, most settlements on the coast, especially Umag, have a

Table 2. Qualification structure of employees in industry of Umag and Buje, May 1994

*Tab. 2. Kvalifikacijska struktura zaposlenih u industriji Umaga i Buja 1994.*

	%	
	INDUSTRY OF UMAG	INDUSTRY OF BUJE
ACADEMIC EDUCATIONS	8,7	5,6
ADVANCED HIGHER EDUCATION	3,3	3,0
SECONDARY SCHOOL	27,7	18,5
VOCATIONAL, ELEMENTARY	13,4	11,0
HIGH SKILLED QUALIFICATIONS	1,7	5,0
QUALIFIED	14,5	8,8
SEMI-QUALIFIED	13,5	19,1
NON-QUALIFIED	17,2	29,0

Source: Poll conducted in 80 % of industry of Umag and Buje Polling by geography students in May 1994



Picture 3. Qualification structure of employees in industry of Umag and Buje- situation in May, 1994  
Slika 3. Kvalifikacijska struktura zaposlenih u industriji Buja i Umaga, svibanj 1994.

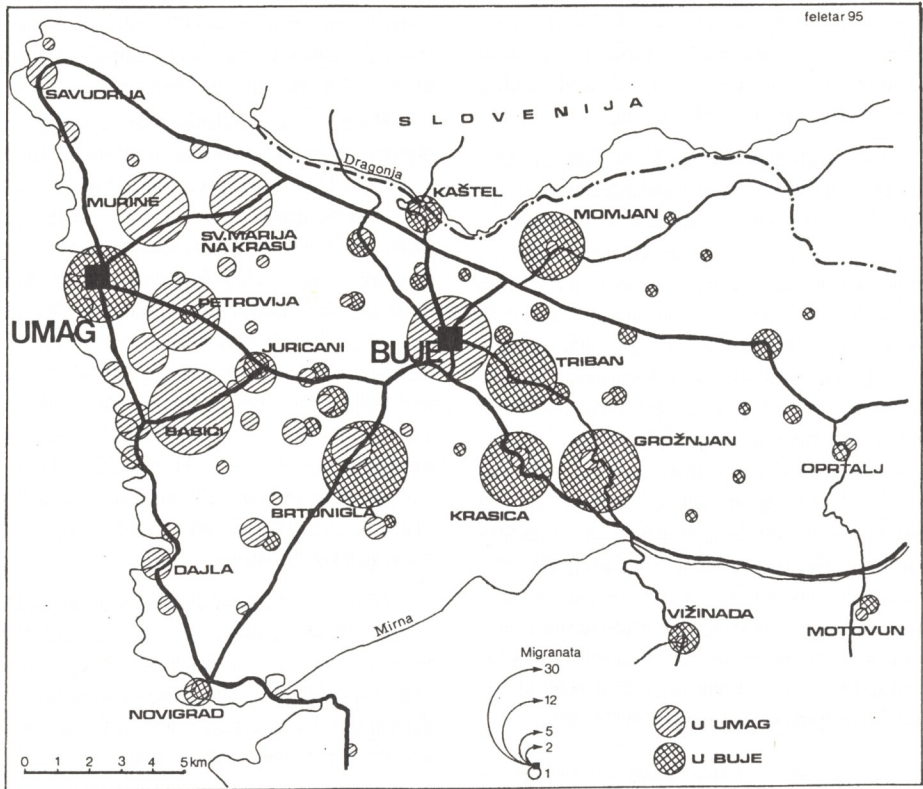
fast demographic increase (see the attached chart).

Although in Buje and Umag we have almost monocentrically developed industries (other settlements of Bujstina region virtually have no industries at all), and relatively favourable structure in different industry trades, in industry we still have more educated people working in places on the coast, or rather, most of them in Umag. This has been

proven by a qualification structure poll, conducted in most of the industrial plants of Umag and Buje, in Spring 1994 (Table 2.).

Of course, gravitational zones of industries of Umag and Buje correspond, covering each others area in great deal, and the same applies for other industry trades as well. Indeed, thanks to tourism and industrial development, economy of the region of Bujstina has grown into one common, and very effec-





Picture 4. Gravitational zones of Umag and Buje in daily migrations within industries of Umag and Buje, and their folding over - according to situation in May, 1994

Slika 4. Preklapanje gravitacijskih zona dnevnih migracija u industriju Umaga i Buja - prema stanju u svibnju 1994. godine

tive and constantly expanding organism, swallowing other settlements into a kind of symbiosis. These ties will boost with application of a new market-oriented system. Corresponding of gravitational zones of Umag and Buje is obvious in daily migrations of the population, employees in the industries (see attached

chart), but also employees in tourism and other trades.<sup>7</sup>

Daily migrations into the industry of Umag are significantly heavier (almost 69,2% industrial workers in Umag come from sur-

7. Poll on intensity of daily migrations was conducted by the students of geography, in about 80% of industrial companies of Umag and Buje, in May 1994

rounding settlements, and a lot even from Buje itself), which is more than in Buje industry (43,3 % of daily migrants). This ratio is expected, due to the relevant industry structures, and domination of industry employment in the town of Buje itself, and lacking further development of tourism.

The mutual progress of both tourism and industry in the region of Bujstina, has less contradicting elements of dispute, with cooperation prevailing over dispute. In microlocation, physiognomy and ecology sense, there are just a few spots of "dispute", naturally located in the coastal area of the region. This particularly applies to inadequate location, and production range of the cement factory in Umag, becoming more acute problem in further development and clean environment achievements of the region. Also, some of the old industries, which the process of urbanization found in the town centre of Umag-like the vegetable processing plant- in perspective need to be relocated, but bearing in mind that such industry is needed in the entirety of economic resources of the region, as well as for the development of tourism in the area.

The problem of manpower use in tourism and industry, very often being of the same need, is a very complex problem. Especially this is hard in the peak of tourist season, when at the same time industry requires an increased number of workers (food processing industry). It is obvious, that in this process of restructure of industry-tourism interrelation, industry has to follow the needs of tourism and help in further expansion of tourism trade. In fact, excessive need for manpower in industry and tourism should be carefully planned, so that these needs are complemented and deficiencies in one trade are covered and complemented with the other. This means joint planning, in order to achieve optimum employment ratio throughout the year. We have

already noticed positive achievements in this respect, especially in small private enterprises. Elements of cooperation should be applied to other areas, and especially with industry located far from the region of Bujstina (equipment, consumer goods, foodstuffs, etc).

Based on the analysis of most geographic elements in tourism-industry relation, this example of Buje region can help us conclude, that here we have a rather successful incorporation of both of the trades into this geographic space. This has introduced great demographic, spatial and ecological changes, but nevertheless has shown a model, how tourism and industry can be complemented and help each other in further development. This has created one specific tourism-industry oriented region here. The combination of tourism and industry development can definitely assure further, and faster progress to the region of Bujstina.

In this context, we find replies to the Poll questionnaire, given by Umag and Buje townspeople, very interesting. The question of further planning for future development of the region, has produced very interesting answers<sup>8</sup>. In Umag, when asked what they believe should come first in the future of their town, in their answers people favoured development of tourism, and further investments in this particular trade. Second on their list of priorities is saved for further development of small enterprises, of craftsmen and small industrial plants in private sector. Third comes the commerce and trade, and fourth has been saved for building of clean industries plants.

In Buje, the sequence of priorities is somewhat different: first comes further development of small enterprises, of craftsmen and small industrial plants in private sector.

*8. In May, 1994 students of geography polled about 300 people in Umag, and about 200 in Buje. Only some characteristic answers were shown here.*

Second is saved for tourism, and clean industry comes third, while the last fourth is for commerce and trade.

Obviously, the inland and the coastal regions can be complementary in their plans for further development.

## Sažetak

# GEOGRAFSKE OSNOVE ODNOSA INDUSTRIJE I TURIZMA

## (Na primjeru Umaga i Buja)

D. Feletar, A. Malić, Z. Stiperski

Članak je podijeljen u dva dijela: u prvom se razrađuje metodologija geografskog proučavanja odnosa industrije i turizma, a u drugom se podastire razrada tih odnosa na primjeru Bujštine, odnosno gradova Buja i Umaga.

O geografskim osnovama proučavanja odnosa industrije i turizma dosad je malo pisano, a članci se uglavnom odnose na primjere "sukoba" ovih dviju gospodarskih grana. U metodološkom slijedu proučavanja odnosa industrije i turizma, predlažu se četiri osnovne faze: prvo je nužno utvrditi razinu razvijenosti i utjecaja turizma i industrije na transformaciju proučavanog područja; drugo valja razraditi elemente razdora između tih dviju grana (mikrolokacija, ekologija, fizionomija, izvor radne snage); treće slijedi razrada elemenata suradnje, te četvrto valja

proučiti elemente suvremenog prestrukturiranja i stvaranja što harmoničnije specifične turističko-industrijske regije.

Na osnovi analize većine geografskih i gospodarskih elemenata odnosa turizma i industrije, na primjeru Bujštine može se zaključiti da se radi o pretežito uspješnom ukorporiranju jedne i druge gospodarske grane u geografski prostor. To je izazvalo velike demografske, prostorne i ekološke promjene, ali se nedvojbeno pokazuje da se turizam i industrija mogu i te kako uspješno nadopunjavati i razvojno potpomagati, stvarajući na ovom području jednu specifičnu turističko-industrijsku regiju. Ova kombinacija turističkoga i industrijskoga razvoja može Bujštini, pogotovu u suvremenim uvjetima tržišne privrede, osigurati još brži napredak.

**Dr. Dragutin Feletar, redoviti profesor**

**Dr. Adolf Malić, redoviti profesor**

**Dr. Zoran Stiperski, asistent**

**Geografski odsjek PMF**

**41000 Zagreb, Hrvatska**

**Marulićev trg 19**