THE ROLE AND THE IMPORTANCE OF CYCLOTOURISM IN THE DEVELOPMENT OF THE ORADEA METROPOLITAN AREA (ROMANIA)

Dorina Camelia ILIEŞ*
University of Oradea, Department of Geography, Tourism and Territorial Planning - CSAT, 1 University St., 410087, Oradea, Romania, e-mail: iliesdorina@yahoo.com

Grigore Vasile HERMAN
University of Oradea, Department of Geography, Tourism and Territorial Planning - CSAT, 1 University St., 410087, Oradea, Romania, e-mail: grigoreherman@yahoo.com

Olivier DEHOORNE
Université des Antilles et de la Guyane – Ceregmia, Campus de Schoelcher, B.P. 7209, Martinique, France, e-mail: dehoorneo@gmail.com

Florin MĂDUTCĂ
University of Oradea, Department of Geography, Tourism and Territorial Planning - CSAT, 1 University St., 410087, Oradea, Romania, e-mail: fmaduta@uoradea.ro

Abstract: Cyclotourism, as a way to maintain and promote health and sustainable transport, imposes itself increasingly lately both locally, nationally and internationally, in the context of a pressing economic crisis, of an increasing fuels price, of the greenhouse gas emissions from transportation and, not least, of the increasing levels of obesity. Set against this background, the present study aims to provide alternative solutions to the problems stated above by promoting cyclotourism in the OMA.

Key words: OMA (Oradea Metropolitan Area), cyclotourism, tourism

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INTRODUCTION

OMA is an intercommunity development association with juridical status that was created following the decision of the General Meeting of Shareholders on 9 May 2005, thus associating Oradea’s municipality with the administrative territorial units found in its close proximity: Biharia, Borș, Cetariu, Nojorid, Oșorhei, Paleu, Sînmartin and Șintandrei. In time, other units joined the association, the Gîrșu de Cârș Commune (31 July 2007), Toboliu Commune (28 December 2007, with its separation from the Gîrșu de Cârș Commune) and Ineu Commune† (June 2, 2010), the OMA association having presently 12 members with full rights². On a surface of 755.5 km², this area comprises a structured network of 42 settlements with a total population of 244,937 inhabitants (2012).

* Corresponding author
† Law no.375/2007,

http://gtg.webhost.uoradea.ro/
The largest center of convergence of the population is the city of Oradea which concentrates 83% of the OMA residents. Therefore, the people mentioned above, along with potential tourists, represent the target group and also the main beneficiaries of the implementation of cyclotourism in OMA. Cycling is one of the most sustainable forms of transport (Gatersleben & Appleton, 2007) and offers health benefits for both the individual tourists and the environment, being an alternative solution of the major problems humanity is currently facing, namely: climate change, increasing levels of obesity and the oil depletion (Wen & Rissel, 2008, Maibach et al., 2009).

Using bicycles as a means of transport in our daily activity can help to auto-congestion and reduce noise and air pollution (Cavill & Davis, 2007). Traveling short distances by bike is a relatively quick and low-cost method, accessible to most segments of the population (Lumsdon & Tolley, 2001). In 2004, Sælensminde, within a specialized study, estimated that investments in cycling infrastructures, besides the fact they are more beneficial to society, are 4-5 times lower in cost, which makes them cost-effective in relation to the auto-transport infrastructure. However, at a global level, there are major differences in the perception and use of cycling. Thus, in North America, a very small proportion of the population (1.2%) uses bikes (Gatersleben & Appleton, 2007), unlike some European countries (e.g., 20% in Denmark and 32% in the Netherlands) (Pucher & Buehler, 2006).

Currently, there are very few studies and research with reference to the OMA that could indicate us with certainty which is the number of people using bicycles for transportation and, even less, of those who practice cycling for touristic purposes, as a leisure activity. Concerning cyclotouristic associations and clubs, we can notice a recent increase of their number and in the activities that they conceive, coordinate and implement. Among the associations with the highest visibility and with the highest number of members, the most remarkable are: the Bate Șava să priceapă Iapa Association / Beat the Saddle so that the Mare gets it (Bucharest), The Cyclists Community from Bucharest (Bucharest), The Napoca Cyclotourism club (Cluj-Napoca), The Sports Club / Clujul Pedaleaza (Cluj Napoca), The Brașovul Pedalează Association (Brașov), The Cycling and Ecology Iași / Bike Club (Iași), The Bihor Pro Bikers Sports Association (Oradea) and the Romanian Cycling Federation (Bucharest).3

The main actions carried by these cyclotouristic associations and clubs are: conducting science and technology introduction courses for children and adults in what concerns pedaling, giving ciclotouristic information, renting bike and car bike carriers, elaborating maps, guides, videos and cycling albums, organizing trips and cyclotouristic holidays, organizing various competitions etc. OMA is represented by the Bihor Pro Bikers Sports Association located in Oradea, Ady Endre Street, no. 81, established in 2008. Currently the club has 94 paying members and about 350 supporters.4

METODOLOGY

This study is the result of a bibliographical and field research focused on the identification, analysis and quantification of the tourism potential in the Oradea Metropolitan Area, on one hand, and on the identification, development and endorsement of the optimal opportunities of exploitation on the other hand.

The identification, analysis and quantification of the tourism potential in the Oradea Metropolitan Area was possible due to a simultaneous combination of methods, techniques and specific work tools. In what concerns the identification, development and endorsement of the optimal opportunities of exploitation of the tourism potential in OMA, we tried to highlight the role and the importance of cyclotouristic networks in the development of the Oradea tourism heritage.

4http://www.probikers.ro/
This was possible by highlighting the existing heritage, as compared with its present improvement through cyclotourism. The identified deficiencies in this area required the elaboration of certain proposals for cyclotouristic networks that could cover touristic areas and landmarks. Furthermore, the proposals made advanced a series of challenges that require a number of steps in order to overcome them.

**TOURISM POTENTIAL OF OMA**

The tourism potential of OMA is the sum of the total potential of all tourist resources (human and natural) and infrastructure (technical and specific).

OMA’s natural tourism resources have a medium tourist development potential and are unevenly distributed spatially. Their attractive potential was calculated on the basis of assessing the potential attractiveness of the landscape, the existence of protected areas and natural therapeutic factors. The main natural attractions are: the Pârâul Peţea Nature Reserve, the Şomleu Hill fossil Reserve, the Betfia Aven (Sânmartin commune), the Daffodils Forest (Oşorhei) and Fâneaţa Valea Roşie (Cetariu commune).

The anthropogenic tourism resources, an expression of the human creative genius, are concentrated mainly in the area of Oradea and Sânmartin. The historical monuments prevail, many of them having a national and even international value: the urban ensemble “The historic center Oradea”, the University Ensemble of Oradea (1912-1913), the Fortress of Oradea (XVIth – XVIIth century). The Castle of Biharia is also worth mentioning in this category, dating from the early medieval period (IXth – Xth century) etc.

The greatness and the peak of the creative genius of the civilization developed on the riverside of Crișul Repede is well reflected in the above mentioned monuments as well as in the architectonic jewels build under the influence of various styles including the byzantine, romanesque, gothic, renaissance, baroque, secession and neo-romanian style. The most representative objects of this type are: the urban ensemble „Şirul Canonicilor” (1763-1870), the Prince's Palace (1618 - 1650), Oradea State Theater (1900), Oradea's Townhall (1902-1903), the „Black Eagle” Palace (1907-1909) and so on. The historic monuments from the OMA’s adjacent space are a testimony of the continuity and vitality of local communities, the expression of Romanians living together in close harmony with other ethnic groups such as Hungarians, Hebrews, Macedonians, Italians, Germans, Slovaks, Ruthenians, Serbs, Poles etc.

In the category of religious buildings, a special attention is required to be given to the following buildings: „St. Martyrs Constantin Brâcoveanu and his sons” (XVIIIth century), the Church of the premonstratense monastery „Maica Indurerată”(1741), the Roman Catholic Bishop Palace that is at present the Ţării Crisurilor Museum (1762), the Roman Catholic Church „Holy Spirit”, Olosig (1905), the Roman Catholic Church (1770), the Roman Catholic Church - "St. Bridge" which is at present the Roman Catholic Cathedral „Sf. Maria Mare” (1752-1780), the Orthodox Cathedral Adormirea Maicii Domnului which is at present the Church Biserica cu Luna (1784-1790) etc.

From the point of view of the cultural heritage, we can observe the existence of several festivals and fairs, namely: Craftsmen's Fair, The singing, dancing and costumes festival from Bihor, The rustic festivals of the Cetariu Commune („Farsang” or Masquerade-Tăutelec, Wine contest-Cetariu, Rustic festival-Tăutelec, The Cetariu Commune Days-Cetariu, The Grapes Festival-Cetariu, the Chestnut Festival-Şiştorea) etc (Ştefănescu et al., 2010). The tourism specific infrastructure is unevenly distributed, most of it being concentrated in the localities of Oradea, Bâile Felix and Bâile 1 Mai. The accommodation base is comprised of 147 accommodation units, which sum up to a

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number of 4572 rooms, respectively 8996 seats. Compared to the county, they represent 84.1 % of the total accommodation rooms, or 82.5 % of the accommodation places. In terms of quality they are classified to a star (1 unit), two stars (38 units), three stars (97 units) and four stars (11 units). Regarding their territorial distribution at the level of the administrative unit, they are located in Sânmartin (104), Oradea (31), Hidşetel de Sus (5), Oşorhei (2), Nojorî, Ineu, Borş, Biharea and Paleu (1). Although OMA has a number of 42 settlements, the accommodation infrastructure is only present in 12 settlements, with different significance in terms of number of units and quality (LSPTC, 2012).

With a total of 14 104 seats (80.2% of the total number of seats in the district), the food places network consists of 112 food places classified to a star (2 units), two stars (44 units), three stars (52 units) and four stars (14 units). In terms of territorial distribution, we can notice their concentration in 6 administrative territorial units, respectively 11 municipalities. The largest number of food places is located in Oradea (46 units) and Băile Felix (39 units). These two localities gathered 10 927 seats in the food places, representing 78.5% of the total number of seats in the OMA (LSPTAP, 2012).

The treatment infrastructure is well represented in OMA by the localities Băile Felix, Băile 1 Mai and Oradea. Here are located a number of hotels that offer treatment facilities in which guests can enjoy the following services: balneotherapy, hydrotherapy, electrotherapy, inhalation, massage, laser therapy, kinesiology, light baths, thermo therapy etc. Among these we mention: the International, Crişana, Mureş, Padiş, Poieniţa, Someş and Nufară Hotels from Băile Felix, the Ceres and Perla Hotels from Băile 1 Mai, the Continental, Nevis Hotels from Oradea etc.

The existence of geothermal resources created optimal conditions for the development of recreational infrastructure in the localities: Oradea (Municipal swimming pool and Ioşia swimming pool), Băile Felix (Apollo swimming pool, Felix swimming pool, Padiş swimming pool and Aqua Park „Aqua President”) and Băile 1 Mai (Venus swimming pool and The waves swimming pool, currently non-functional).

The conferences and exhibitions infrastructure is well represented in OMA by the existence of 23 structures of this type with a capacity of cca 3963 persons: Oradea (13 structures), Felix (7 structures) and Băile 1 Mai (3 structures).

In order to diversify tourism, a horse riding base was established in 2005 close to Băile Felix „Maneje il Cavallino”, „equipped with a wide range of trained horses for beginners and also for masters of horsemanship”6. There are also paragliding flights organized, off road (on the Şomleului Hill, located near Băile 1 Mai) and various fishing competitions on the Valea Viţeilor Lake, Valea Plopilor Lake from Cetariu, Săldăbagiu de Munte, Paleu, Livada and on the Crişul Repede river course. Although it has a wide range of tourist resources, both natural and anthropogenic, OMA is still insufficiently exploited in terms of tourism. One aspect that hinders the tourism development is related to the scarcity of the infrastructure and the lack of an integrated promotion.

The road infrastructure (European roads E 79, E 60, E 71 and county roads DJ 797, DJ 767, DJ 79 etc.), the railway infrastructure (main railways 300, 310, 314 and 402), the air infrastructure (Oradea Airport) and the particularly favorable geo-strategic geographical position, at the contact between the western civilization and eastern Europe, make OMA into a pole of convergence of the main regional and even international tourist flows.

In what concerns the technical-municipal equipment, we observe the existence of the following networks: the water distribution network (843.5 km), the sewage network (793.7 km) and the natural gas distribution network (244, 2 km). If for the commune centers adjacent to OMA the problems of water supply and sewerage have been largely resolved, the same cannot be said about the villages belonging to these centers where things remained at the level of development strategy.

6 http://www.turismbaile1mai.com/bazahipica.html
The analysis of the tourism development potential in OMA shows that this area has a global tourism development potential relatively average. This is due to the lack of a wide diversification of natural and human tourism resources and an uneven distribution of tourism infrastructure etc. After an analysis at the administrative unit level, the tourism development potential falls into three groups of values, namely:
- Low development potential (Girişu de Criş, Sântandrei, Cetariu, Paleu, Ineu, Toboliu);
- Average growth potential (Biharia, Borş, Nojorid, Oşorhei);
- High development potential (Oradea, Sânmartin) (Figure 1).

THE CURRENT STAGE OF CYCLOTURISM DEVELOPMENT IN OMA

Currently OMA is unexploited in terms of cyclotourism. This is due to the convergence and collaboration of several factors of a paramount importance including the absence of the specific infrastructure. However it is noted that till 2012 there are four "bike tracks" totaling a number of 10.2 km.

Three of these are arranged on both sides of Crişul Repede River, following faithfully the route of the protection dams, on which they are located. The fourth track (4 km long) is located in the southern part of Oradea, making the connection between the Zoo and the Nufărul district. There is also a project for a 23.5 km track, situated between the localities Borş and Bâile 1 Mai and Bâile Felix, from west to east (Figure 2).

This track has a strategic importance, giving an opportunity and having a role in intercepting and orientating the Hungarian tourist flow from the border area towards the two above mentioned thermal resources. Therefore, both in Oradea and at the OMA level,
there is currently no viable strategy to exploit the tourism potential through cycling. This emerges from the existing poor infrastructure represented by the planning of the four cyclotouristic tracks analyzed in this study.

![Map of the cyclotourist tracks in OMA /ZMO (2012)](image)

**Figure 2.** Map of the cyclotourist tracks in OMA /ZMO (2012)

**PROPOSALS FOR CYCLOTOURISTIC ROUTES**

In order to make proposals regarding the location and the length of the cyclotouristic routes specific to OMA a number of parameters with major impact on their distribution were analyzed in advance, among which stand out: topography, hydrography, acces ways, distribution of human settlements and distribution of the objectives with tourist interest. The relief has been studied, considering his role as a support for the cyclotourist routes and also his disturbing, limiting role or contrary, in the development of cyclotourism. Thus, we analysed the optimal possibilities for the exploitation of the relief through tourism, taking into account the altitude, the type of relief forms and the fragmentation of the relief.

Over time hydrography fascinated man, representing both a convergent and a divergent factor for human communities and the activities they were engaged in. If water used to separate people, forming natural barriers with a strategic role in their defense and safety it currently unites them through the building of many bridges that facilitate the transition from one side to the other, an example being the city civilization developed on the Crișului Repede riverside, Oradea.

The acces ways, with their morphological and functional characteristics, represent another important factor in determining cyclotouristic routes. Thus, while drawing the cyclotourist routes in OMA, it was pursued to avoid traffic arteries as much as possible (DN and DJ), manifesting instead a preference for large municipal and forest roads.
The distribution of human settlements was analyzed in terms of its function as main depository of the metropolitan tourism potential. Basically, it is closely linked to the spatial distribution of the tourism infrastructure and of the tourism resources. Besides the tourist resources located in the centre of the human settlements, there is another category of resources, the one found outside the built-up area. Among these, the natural tourist resources that are worth mentioning are: the Şomleu Hill fossil Reserve, the Betfia Aven, the Daffodils Forest (Oşorhei) and the Fâneaţa Valea Roşie (Cetariu Commune). The access of a cycling tourist to these tourist objectives was a sine-qua-non condition that was taken into account when drawing the cyclotouristic routes.

After a detailed analysis of relief, hydrography, railway accesses, human settlements distribution, tourist objectives in OMA, a number of 11 cyclotouristic routes was proposed for this area, with a total length of 296.5 km. Each touristic route that was proposed (Table 1) is characterized by several parameters like route, marking, length, route difficulty, duration of the touristic activity (Cocean, 2011; Gavrila, 2012a; 2012b). The cyclotouristic routes follow closely the spatial distribution of the roads infrastructure and of the hydrotechnic route which is represented by dams. In what concerns the roads infrastructure, we can observe that there is a high accessibility in creating cyclotourist routes on the communal roads, on the forest roads, while the European roads and the national roads were taken into consideration for smaller portions.

<table>
<thead>
<tr>
<th>Nr. Crt.</th>
<th>Cyclotouristic routes</th>
<th>Length (km)</th>
<th>Duration of action (h)</th>
<th>Degree of difficulty</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Şuşturogiu - Păuşa</td>
<td>55.6</td>
<td>10 h</td>
<td>easy to medium</td>
</tr>
<tr>
<td>2</td>
<td>Cheresig - Botean</td>
<td>48.5</td>
<td>9 h</td>
<td>easy</td>
</tr>
<tr>
<td>3</td>
<td>Toboliu - Fughiu</td>
<td>42.1</td>
<td>7 h</td>
<td>easy</td>
</tr>
<tr>
<td>4</td>
<td>Borş – 1 Mai</td>
<td>23.4</td>
<td>6 h</td>
<td>easy</td>
</tr>
<tr>
<td>5</td>
<td>Oradea - Cetariu – Biharea - Oradea</td>
<td>37.1</td>
<td>7 h</td>
<td>medium</td>
</tr>
<tr>
<td>6</td>
<td>Băile Felix - Păuşa - Šauaieu - Băile Felix</td>
<td>34.6</td>
<td>10 h</td>
<td>medium</td>
</tr>
<tr>
<td>7</td>
<td>Băile 1 Mai - Felcheriu - Fughiu</td>
<td>22</td>
<td>5 h</td>
<td>easy to medium</td>
</tr>
<tr>
<td>8</td>
<td>Uileacu de Munte - Şuşturogi</td>
<td>10.7</td>
<td>3 h</td>
<td>medium</td>
</tr>
<tr>
<td>9</td>
<td>Băile 1 Mai - Betfia - Băile Felix - Băile 1 Mai</td>
<td>10.3</td>
<td>4 h</td>
<td>medium</td>
</tr>
<tr>
<td>10</td>
<td>Santâul Mare - Borş</td>
<td>7.8</td>
<td>2 h</td>
<td>easy</td>
</tr>
<tr>
<td>11</td>
<td>Fughiu - Husăsău de Criş</td>
<td>4.4</td>
<td>1 h</td>
<td>easy</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>296.5</td>
<td>64 h</td>
<td></td>
</tr>
</tbody>
</table>

In order to facilitate the orientation, a name (Table 1) and a conventional sign (Figure 3) were attributed for each cycloroute. The conventional sign, at its turn, is composed by a geometrical figure incentred in a circle. The colour of the sign indicates the level of difficulty of the cyclotouristic route. Therefore, red indicates a medium difficulty level while blue indicates an easy route. The passage way between the two levels is marked by a two-coloured pictogramme with a blue geometrical figure incentred in a red circle. The type of the cycloroute is also marked through a conventional sign and thus the circle with a continous line indicates a main route while the circle with an interrupted line indicates the existence of a secondary route. The name of the routes derives from the name of the settlements they cross.

The lenght of the cycloroutes: distributed relatively uniformely at the level of OMA, the cyclotourist routes proposed for this area have a total length of 296.5 km. In what
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Concerns the length of the routes depending on their categories, we can notice the predominance of the main routes (169.6 km), as compared to the secondary routes (126.9 km) (Table 1). The level of difficulty for the cyclotouristic routes proposed for OMA oscillates between easy and medium (Table 1). While establishing the level of difficulty, two essential parameters were taken into account: the difference in level and the type of the circulated surface (earth, asphalt). We have to mention that a cyclotouristic route can be composed of sections that have different levels of difficulty. For example, the northern section of the Şuşturogiu - Păuşa Cycloroute has a medium level of difficulty, while the southern section has an easy level of difficulty.

Figure 3. Map of the cyclotouristic routes proposed for OMA/ZMO

The duration of a touristic activity varies from 1 hour (the Fughiu - Husasău de Criş Cycloroute) to 10 hours (the Şuşturogiu – Păuşa Cycloroute and the Băile Felix - Păuşa - Şauaieu - Băile Felix Cycloroute). This indicator is influenced by a series of factors, namely: the length of the cyclotouristic route, the difficulty of the cyclotouristic route, the density of the touristic objectives, the panoramic places located along the route, the tourist’s fitness, the tourist’s willingness to advance at a lower or higher speed etc.

CHALLENGES ENCOUNTERED IN THE EXPLOITATION THROUGH CYCLOTOURISM OF THE OMA’S TOURISTIC POTENTIAL

Even if OMA benefits from a large variety of touristic resources, the current stage of exploitation through cyclotourism is almost invisible. The causes find their roots in the poor level of education concerning cyclotourism, in the lack of specific infrastructure, in the lack of advertising and promotion of tourism, in the poor involvement of the
authorities and of the local communities in promoting cyclotourism, in the deficient 
involveof the cultural and educational institutions, in the lack of acces infrastructure 
for various touristic objectives, in the reduced number of projects in the tourism area, in 
the lack of an efficient strategy (achievable for a sustainable and responsible development 
of the area), in the advanced deterioration of the touristic objectives, in the lack of an 
integrated system of development for the local touristic potential, in the lack of the 
homologated cyclotouristic routes.

Surpassing the above mentioned challenges is a guarantee and also a condition in 
what concerns the opportunities to exploit through cyclotourism the touristic potential fo 
OMA. In order to surmount these challenges, it is absolutely necessary to take a certain 
set of measures, taking sincerely into account the local circumstances.

**NECESSARY MEASURES FOR THE EXPLOITATION THROUGH CYCLOTOURISM OF THE OMA’S TOURISTIC POTENTIAL**

The identification of the challenges that appear in the opportunities to exploit the 
touristic potential in OMA triggered the identification of the measures that should be 
taken in this direction, namely:

- the development of several educational activities in order to arise the awareness 
on the role and on the importance of cyclotourism in society;
- the development of an infrastructure specific to cyclotouristic activities (special 
  tracks for cyclotourists, bike stands, bike shops and bike repair shops etc);
- the organization of several promotion actions for the cyclotouristic exploitation of OMA;
- the involvement of the authorities and of the local communities in promoting cyclotourism;
- the involvement of the cultural and educational institutions in the creation of 
certain models that could help the exploitation of the the touristic potential in OMA;
- the improvement of the acces infrastructure for various touristic objectives;
- the growth in number of the projects in the tourism area;
- the development of an efficient strategy (achievable for a sustainable and 
  responsible development of the area);
- the reconditioning and the preservation of certain touristic objectives etc.
- the creation of maximum security conditions for the touristic activities, taking 
  into account the heavy traffic on several sections;
- the development of a marking-promoting system (markings, indicators, 
  informative panels etc) according to the current legislation;
- the homologation of the proposed cyclotouristic routes according to the current 
  legislation;
- the creation of connections and interconnections with other types of routes from 
  the involved area or from the surrounding area etc.

**CONCLUSIONS**

The main arguments that support the necessity of a better exploitation of the the 
touristic potential in OMA are represented, on one hand, by the existence of several 
distinct tourist resources in the studied area, of a high quality infrastructure concentrated 
in Oradea and of the two resorts located in proximity (Băile Felix, Băile 1 Mai) and, on the 
other hand, by the necessity of a sustainable and responsible development of the area. 
Therefore, cyclotourism involves a superior exploitation of the metropolitan touristic offer 
through an efficient system of connections and interconnections. Other actions that 
promote the bike as a means of transport have been conducted in Oradea within the 
project „Vote for bikes, vote for a cleaner town!” The purpose of this project was to draw 
a guide book for the „improvement of the environment through an innovative approach 
on the urban transportation” with the aim to „reduce de level of pollution through auto
congestion at the level of the entire municipality”. Moreover, the guidebook represents „a dissemination instrument dedicated to the local authorities and to the inhabitants of the urban settlements form Romania and from the other countries of the Eastern and Central Europe” (page 4).3

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