

NOVIJA PROSTORNA DIFUZIJA VINOGRADA U VINOGORJU KUTJEVO

THE RECENT SPATIAL DIFFUSION OF VINEYARDS IN THE KUTJEVO WINE-GROWING HILLS

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Izvod

Rad razmatra širenje komercijalnih vinograda u Vinogorju Kutjevo 2000. – 2012. godine potaknuto mjerama nacionalne agrarne politike. Teorijski koncept istraživanja je model prostorne difuzije radi čijeg su objašnjavanja uvedeni termini korišteni u stranoj literaturi, poput S-krivulje, učinka susjedstva i učinka hijerarhije. Osnova su metodološkog pristupa telefonsko anketno istraživanje, istraživački razgovor (intervju) i terensko kartiranje u okviru kojih je ispitano 130 vinogradara ili 26,6 % od 488 vinogradara u Upisniku poljoprivrednih gospodarstava. Rezultati pokazuju da je Kutjevo bilo primarno difuzijsko žarište Vinogorja Kutjevo, da je početak i završetak širenja vinograda bio uvjetovan financijskim razlozima te da je prihvaćanje vinograda u pojedinim naseljima ovisilo o njihovim razvojnim obilježjima (tipovima). Posljedica širenja vinograda je transformacija agrarnog pejzaža i začetak vinskog turizma u jezgri Vinogorja Kutjevo. Mogućnost razvoja vinogradarstva i vinskog turizma je stvaranje i umrežavanje klastera, čega su proizvođači svjesni.

Cljučne riječi: vinogradarstvo, Vinogorje Kutjevo, prostorna difuzija, lokalni razvoj

UVOD

Republika Hrvatska ima gotovo optimalne prirodne uvjete i višestoljetnu tradiciju kultiviranja vinove loze. Krajem 19. st. vinogradi su pokrivali više od 170.000 ha, no do početka ovog tisućljeća vinorodne su se površine znatno smanjile zbog brojnih čimbenika. S obzirom da Europska unija ne dopušta povećanje vinogradarskih površina, Hrvatska je tijekom pretpripravnog razdoblja već krajem 1990-ih pokrenula operativni program i strategiju podizanja trajnih nasada, koja je uključila i vinograde (Milat, 2005; Grahovac, 2005).

Vinova je loza vrijedna poljoprivredna kultura s mnogim komparativnim prednostima. Osim što podnosi veće nagibe padina i slabije plodna tla, zbog visokog intenziteta proizvodnje isplativija je od ostalih kultura, a može poslužiti i kao atrakcijska osnova vinskoga ruralnog turizma. U skladu s tim, vinova loza čini egzistencijalnu okosnicu velikog broja obiteljskih gospodarstava i pojedinih regija. Konačno, vinova loza s vinogradarstvom predstavlja

Abstract

This paper considers the expansion of commercial vineyards in the Kutjevo wine-growing hills in the period from 2000 to 2012, as encouraged by national agrarian policy measures. The theoretical concept of the study is the spatial diffusion model. For its explanation, the terms used in the foreign literature, such as the S-curve, the neighbourhood effect and the hierarchy effect, have been introduced. The methodological approach was based on telephone surveys, interviews and field mapping. A total of 130 grapevine growers, or 26.6% of the total 488 grapevine growers listed in the Farm Register, were surveyed. The results show that Kutjevo was the primary focal point of diffusion in the Kutjevo wine-growing hills area, that the start and end of vineyard expansion was predicated on financing, and that the adoption of vineyards in individual settlements was contingent on their developmental characteristics (types). The outcome of the expansion of vineyards was the transformation of the agrarian landscape and the start of wine tourism in the core of the Kutjevo wine-growing hills. The creation and networking of clusters presents an opportunity for the development of viticulture and wine tourism, and producers are aware of this.

Key words: viticulture, Kutjevo wine-growing hills, spatial diffusion, local development

INTRODUCTION

Croatia has virtually optimal natural conditions and centuries of tradition in the cultivation of grapevine. In the late 19th century, vineyards covered over 170,000 ha, though by the beginning of this millennium, wine growing areas had been significantly reduced due to a number of factors. Given that the European Union does not permit the increase of grapevine growing areas, during the pre-accession period in the late 1990s, Croatia launched an operational programme and strategy to raise new, permanent plantations, including vineyards (Milat, 2005; Grahovac, 2005).

The grapevine is a valuable agricultural crop with numerous comparative advantages. In addition to its tolerance of greater slope gradients and soils of lesser fertility, the high intensity of production makes it more profitable than other crops, and it can serve as the attraction core of rural wine tourism. Accordingly, grapevine constitutes the existential cornerstone of a great number of family farms and of individual regions. Finally, grapevine and viticul-

kultivirani dio identiteta određenoga (ruralnog) područja (Mirošević i Karoglan Kontić, 2008).

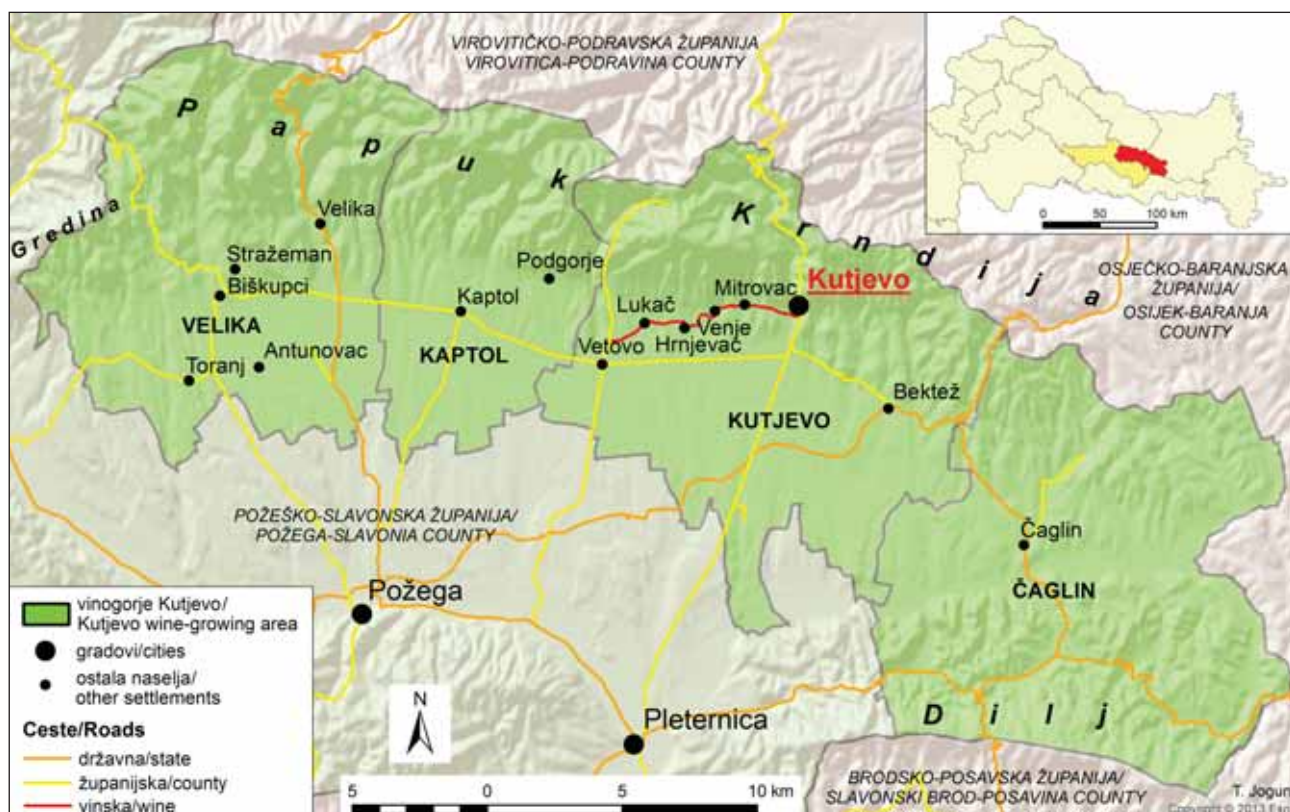
Promatrajući cijelu Hrvatsku od početka primjene strategije podizanja novih vinograda, Požeško-slavonska županija pripada samom vrhu po ostvarenim poticajima s obzirom na površinu i broj stanovnika (Biško, 2003; izvor 3). Međutim, po procjeni županijske savjetodavne službe za vinogradarstvo, čak je 900 ha ili 90 % svih novih nasada podignuto u Vinogorju Kutjevo, a tek 10 % u vinogorjima Požega-Pleternica i Pakrac-Lipik. Zbog svojih velikih prednosti, prostor Vinogorja Kutjevo eklatant je primjer procesa karakterističnih za recentno razdoblje u vinogorjima diljem Hrvatske, a koji se mogu promatrati u okviru paradigme prostorne ili geografske difuzije. Budući da studija difuzije osigurava "najkompleksniju geografsku obradu nekog prostora" (Crkvenčić i Malić, 1988: 129), širenje komercijalnih vinograda poslužit će kao temelj za dubinsko istraživanje lokalno-razvojnih tendencija u Vinogorju Kutjevo.

Prostor istraživanja je Vinogorje Kutjevo u granicama definiranim pravilnikom o vinogradarskim područjima. Prema toj klasifikaciji, Vinogorje Kutjevo pripada regiji Kontinentska Hrvatska i podregiji Slavonija, a administrativno gledano obuhvaća općine Velika, Kaptol, Čaglin i upravni grad Kutjevo (izvor 7) (sl. 1).

ture constitute the cultivated segment of the identity of a given (rural) area (Mirošević & Karoglan Kontić, 2008).

In observing Croatia as a whole, from the inception of the implementation of the strategy to raise new vineyards, Požega-Slavonia County stands out in terms of the number of subsidies achieved by surface area and population (Biško, 2003; source 3). According to the assessment of the county agricultural extension service for viticulture, 900 ha or 90% of all new plantations in the county have been raised in the Kutjevo wine-growing hills, and only 10% in the Požega-Pleternica and Pakrac-Lipik wine-growing hills. As a result of its great advantages, the Kutjevo wine-growing hills area is a striking example of the characteristic processes in the recent period in wine regions across Croatia, which can be viewed in the frame of the paradigm of spatial or geographic diffusion. Considering that a diffusion study ensures the "most complex geographic treatment of an area" (Crkvenčić & Malić, 1988: 129), the expansion of commercial vineyards will serve as the basis for a detailed study of local development tendencies in the Kutjevo wine-growing hills.

The study area is the Kutjevo wine-growing hills, in its borders as defined by the Ordinance on wine-growing areas. According to this classification, the Kutjevo wine-growing hills area belongs to the Continental Croatia wine region and the Slavonia wine subregion. Administratively, it encompasses the municipalities of Velika, Kaptol and Čaglin and the town of Kutjevo (source 7) (Fig. 1).



Sl. 1. Geografski položaj i obuhvat Vinogorja Kutjevo

Fig. 1. Geographic position and boundaries of the Kutjevo wine-growing hills area

Često se ističe posebnost da najbolje kutjevačke vinogradarske površine dijele geografsku širinu od 45°20' N sa svjetski poznatim bordoškim, provansalskim i pije-montskim vinorodnim područjima (izvor 10). Međutim, puno značajniji utjecaj imaju mikroreljefni i mikrokli-matski uvjeti, koji su u većem dijelu Vinogorja Kutjevo zaista povoljni (prisojne padine Krndije i Papuka) (Bo-žičević i dr., 2011). Najslabiju prirodnu predispoziciju za vinogradarstvo ima jugoistok Vinogorja u općini Ča-glin, na osojnoj padini Dilj gore s dominantnom šum-skom vegetacijom.

TEORIJSKI OKVIR I METODE RADA

"Inovacija je proces plošnog ili linijskog širenja iz ne-kog središta prema vani; širenje se vrši u skladu s načinom oponašanja, odnosno vrednovanja pojedinih socijalnih skupina; pri tom širenju svladavaju se otpori tradicije" (Borcherdt, 1961, prema Ruppert i dr., 1981: 83).

Ovakvo je shvaćanje do sada prevladavalo u hrvat-skoj literaturi u socijalnoj (Ruppert i dr., 1981) i ruralnoj geografiji (Crkvenčić i Malić, 1988), što je plod utjecaja Torstena Hägerstranda koji je sredinom 20. stoljeća učinio veliki metodološki i konceptijski iskorak u geo-grafskom proučavanju difuzije inovacija (Hägerstrand, 1952, 1967). Načelno, svaka pojava koja se spontano širi u prostoru, uvijek je nova pojava u njemu. I obrnuto, pojava se ne može širiti ondje gdje je prisutna. Budući da se bilo koja pojava može širiti u prostoru i vreme-nu, uvjetno bismo je mogli nazvati inovacijom (zarazna bolest, poljoprivredna kultura, jezik, stanovništvo itd.) (Hägerstrand, 1967; Brown, 2009). Međutim, pojam inovacije općenito označava fenomene nove tehnologi-je, načine proizvodnje i ideje, a s tim bi se poimanjem trebala uskladiti i geografija.

Osim toga, početno navedena definicija u knjizi Ru-pperta i dr. (1988) ima još neke nedostatke. Kao prvo, *inovacija* nije proces širenja, nego njegov glavni pro-storni (geografski) sadržaj. Drugo, prikladniji naziv opisanog procesa može biti prostorna ili geografska *difuzija* (Vresk, 2002). Zaključno, širenje pojave nije plošno (dvodimenzionalno) ni linijsko (jednodimenzi-onalno), nego se odvija u realnom *geografskom prostoru* (Šterc, 2012).

Na temelju kritičkog promišljanja u ovom će radu pro-storna ili geografska difuzija označavati proces stupnje-vitog širenja pojave u pojedinoj regiji tijekom određenog vremena pod utjecajem prostornih (prirodnih i društve-nih) i nekih ne-prostornih faktora. Nadalje, dat će se sažet prikaz obilježja prostorne difuzije na primjeru poljopri-vredne kulture, dok bi za detaljniju teorijsku razradu tre-balo pristupiti novom istraživačkom zadatku.

Elementi prostorne ili geografske difuzije su: pro-storno-vremenski okvir, prenositelji (subjekti), pojava (objekt) koja se širi te faktori koji utječu na sam proces.

It has often been emphasised that the best Kutjevo wine-growing positions share the latitude of 45°20' N with the world renowned Bordeaux, Provence and Piedmont wine-growing regions (source 19). A much more significant influence, how-ever, is due to the micro-relief and micro-climatic conditions, which are truly favourable in most of the Kutjevo wine-grow-ing hills (i.e. the sun-facing slopes of the Krndija and Papuk hills) (Božičević et al., 2011). The least natural predisposition for grapevine growing is in the southeast of the wine-growing hills area, in the municipality of Čaglin, on the shaded slopes of the Dilj hills that are dominated by forest vegetation.

THEORETICAL FRAMEWORK AND STUDY METHODS

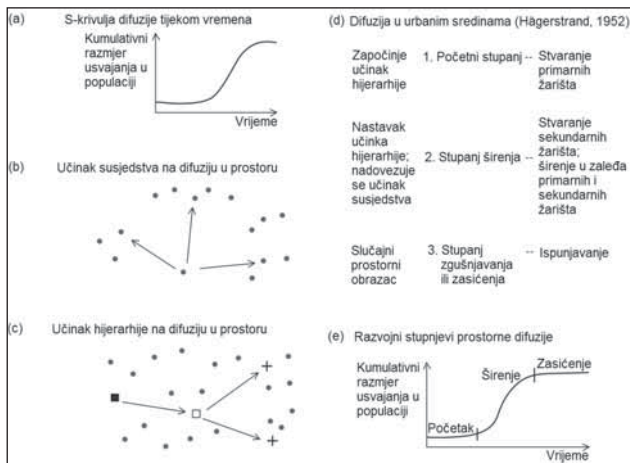
"Innovation is the process of flat or linear expansion out-wards from the centre; expansion follows the principle of imi-tation, i.e. the valorisation of individual societal groups; the resistance offered by tradition is overcome in this expansion" (Borcherdt, 1961, according to Ruppert et al., 1981: 83).

This understanding has to date been predominant in Cro-atian literature in social (Ruppert et al., 1981) and rural ge-ography (Crkvenčić & Malić, 1988). This is the result of the influence of Torsten Hägerstrand who, in the mid 20th century, made a great methodological and conceptual breakthrough in the geographic study of innovation diffusion (Hägerstrand, 1952, 1967). In principle, every phenomenon that spontane-ously spreads in space is always a new phenomenon in that space. And conversely, the phenomenon cannot spread where it is already present. Given that any phenomenon can spread in space and time, we could conditionally call it innovation (a communicable disease, agricultural crop, language, popula-tion, etc.) (Hägerstrand, 1967; Brown, 2009). However, the concept of innovation generally denotes the phenomena of new technologies, production methods and ideas, and geogra-phy should be aligned with this understanding.

The definition given above from Ruppert et al. (1988) has some additional shortcomings. Firstly, *innovation* is not the process of expansion; rather it is its chief spatial (geo-graphic) content. Secondly, a more appropriate name for the described process could be spatial or geographic *diffu-sion* (Vresk, 2002). Finally, the spread of the phenomenon is not flat (two dimensional) or linear (one dimensional); rather it takes place in real *geographic space* (Šterc, 2012).

Based on a critical consideration, this study denotes spatial or geographic diffusion as the process of the grad-ual spread of a phenomenon in an individual region over a particular period, under the impact of spatial (natural and societal) and non-spatial factors. Furthermore, a brief over-view is given of the characteristics of spatial diffusion in the example of agricultural crops, while a more detailed theoretical elaboration would require a new research task.

The elements of spatial or geographic diffusion are: the spatial and chronological frame, transmitters (subjects), the phenomenon (object) that is spread and the factors that



Sl. 2. Empirijske zakonitosti prostorne ili geografske difuzije

Izvor: modificirao autor prema Brown, 2009.

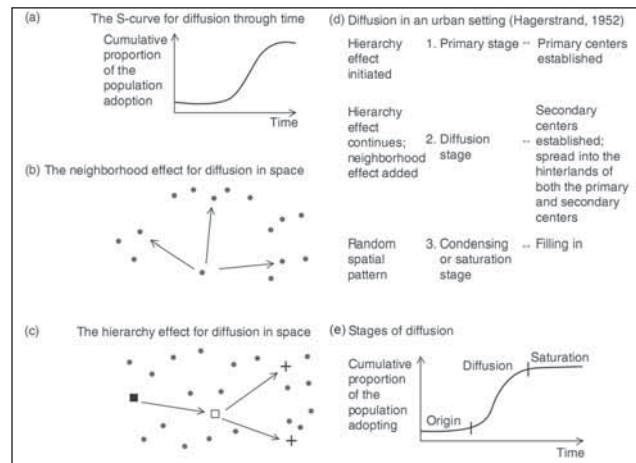


Fig. 2. The empirical laws of spatial or geographic diffusion

Source: modified from Brown, 2009

Ako se pojava širi od jednog do drugog subjekta riječ je o *ekspanzijskoj*, a ukoliko se premještaju subjekti (i/ili pojava) riječ je o *relokacijskoj* difuziji. S obzirom na učinak glavnih prostornih faktora razlikujemo *susjedski (kontaktni)* i *hijerarhijski (kaskadni)* tip ekspanzijske, odnosno relokacijske difuzije. Njihovim kombinacijama definiramo pojednostavnjeni model prostorne difuzije (Gould, 1969; Brown, 2009).

Difuzija se odvija u fazama pod utjecajem ekonomskih, socijalnih, psiholoških i geografskih faktora (Crkvenčić i Malić, 1988), poprimajući karakterističnu *S-krivulju*¹ širenja tijekom vremena (sl. 2a i 2e). Broj razvojnih stupnjeva je između dva i pet, ovisno o autoru. Veći broj stupnjeva posljedica je raščlanjivanja, a manji pojednostavnjivanja osnovnoga trostupanjskog modela. Crkvenčić i Malić (1988) unutar početnog stupnja razlikuju još i temeljni stupanj (sinonimi!), a s druge strane Vresk (2002) izostavlja završni stupanj. Ovdje će biti predstavljen klasični model u tri razvojna stupnja (sl. 2d i 2e) radi izbjegavanja terminološkog kaosa i pretjerane simplifikacije.

Početni razvojni stupanj označava početak neke pojave, npr. nove poljoprivredne kulture u nekoj regiji. Ona može biti uvjetovana pojedinačnom inicijativom, odnosno potaknuta informacijama dobivenim osobnim kontaktima, putem medija ili inicijativom države. Stvara se i primarno difuzijsko žarište iz kojeg će se kultura kasnije širiti. Za trajanja početnoga stupnja broj ljudi koji prihvaća poja-

impact the process itself. If a phenomenon spreads from one subject to another, it is an *expansion*, and if subjects (and/or phenomena) are shifted, then it is *relocation* diffusion. With regard to the effect of the chief spatial factors, there is a distinction between *neighbouring (contact)* and *hierarchical (cascading)* types of expansion or relocation diffusion. We use their combinations to define a simplified model of spatial diffusion (Gould, 1969; Brown, 2009).

Diffusion takes place in phases under the influence of economic, societal, psychological and geographic factors (Crkvenčić & Malić, 1988), acquiring the characteristic *S-curve*¹ expansion over time (Figs. 2a and 2e). The number of developmental phases ranges from two to five, depending on the author. A greater number of phases is the result of further division, while a smaller number is the result of the simplification of the basic three-phase model. Within the initial phase, Crkvenčić & Malić (1988) also differentiated a baseline phase (synonyms!), as opposed to Vresk (2002), who omitted the final phase. The present study presents a classic model with three developmental phases (Figs. 2d and 2e) in order to avoid both terminological chaos and oversimplification.

The initial developmental phase marks the beginning of a phenomenon, e.g. a new agricultural crop in a particular region. This may be based on an individual initiative or prompted by information received through personal contacts, through the media or the initiative of the state. A primary focal point of diffusion is also created from which the crop will later spread. For the duration of the initial phase, the number of people adopting

¹ Ranije su geografski teoretičari difuzije smatrali da je to logistička krivulja. Međutim, logistička krivulja implicira determinizam koji se ne uklapa u noviji stohastički pristup u geografiji. Stoga su se teoretičari odlučili prikloniti aproksimaciji koja djelomično odstupa od logističke krivulje pa su izveli *terminus technicus – S-krivulja* (engl. *S-curve*) (Clark, 1984).

¹ Previously, theoreticians of geography considered it a logistic function. A logistic function, however, implies determinism, which does not correspond to the recent stochastic approach in geography. Theoreticians have as a result opted to apply an approximation that deviates partially from the logistic function and applies the *terminus technicus – S-curve* (Clark, 1984).

vu relativno je malen (Hägerstrand, 1952, 1967; Gould; 1969; Crkvenčić i Malić, 1988; Brown, 2009).

Razvojni stupanj diferenciranog širenja počinje centrifugalnim širenjem pojave iz primarnog žarišta u obliku lančane reakcije ili tzv. *difuzijskih valova*.² Potom nastaju sekundarna difuzijska žarišta iz kojih se šire novi, manji difuzijski valovi. Jedna od glavnih pokretačkih sila prostorne difuzije jest oponašanje. Zbog toga je u početku difuzija najjača u blizini difuzijskog žarišta. Suprotno tome, u rubnim dijelovima difuzijskog područja kultura se prihvaća s oklijevanjem i sve slabije (Hägerstrand, 1952; Ruppert i dr., 1981; Crkvenčić i Malić, 1988). Na diferencirano širenje djeluju *učinak hijerarhije i susjedstva*. Učinak hijerarhije očituje se snažnijom i ranijom difuzijom pojave u naseljima s višim stupnjem centraliteta (sl. 2c), a učinak susjedstva znači da se pojava širi intenzivnije u naseljima koja su bliže difuzijskom žarištu (sl. 2b) (Hägerstrand, 1967; Gould, 1969; Brown, 2009). Tijekom trajanja ovoga razvojnog stupnja difuzije relativno najveći broj ljudi prihvaća pojavu. Međutim, pojava tijekom svoga širenja može pojedina područja i zaobići, što može biti posljedica nepovoljnih prirodnih obilježja, ali i društvenih uvjeta u tim područjima (prometno-geografska izoliranost, tradicionalna kultura, određena struktura stanovništva, mentalitet seljaka, veličina posjeda...). Na taj način difuzija bilo koje pojave, a pogotovo inovacije postaje relevantan indikator prostorne razvijenosti (Hägerstrand, 1952, 1967; Ruppert i dr., 1981; Crkvenčić i Malić, 1988).

Kad se pojava svojim rezultatima potvrdi, dolazi do zgušnjavanja, odnosno usporavanja samog procesa u cijelom prostoru širenja. To je *razvojni stupanj zasićenja* kojim završava prostorna difuzija. Do zasićenja može doći kad prirodni uvjeti, tržište ili drugi razlozi sprječavaju daljnji razvoj difuzije. Broj novih ljudi koji prihvaćaju kulturu naglo se smanjuje, a broj ukupnih usvojitelja stagnira, što je indikator završetka procesa (Hägerstrand, 1952, 1967; Crkvenčić i Malić, 1988).

Radi dosizanja postavljenih ciljeva rada provedeni su telefonska anketa u Vinogorju Kutjevo te sondažno istraživanje (intervju i terensko kartiranje) u općini Velika koja predstavlja detaljniju *studiju slučaja*. Telefonsko anketiranje provedeno je u upravnom gradu Kutjevo te općinama Kaptol i Čaglin u razdoblju od 24. ožujka do 4. travnja 2013. Intervju je obavljen u općini Velika od 15. do 30. ožujka, dok je terensko kartiranje obavljeno u istoj općini 25. travnja 2013. godine.

Istraživanu populaciju činili su privatni komercijalni vinogradari ($\geq 0,5$ ha vinograda) s prebivalištem na području Vinogorja Kutjevo koji su posadili vinograd

the phenomenon is relatively small (Hägerstrand, 1952, 1967; Gould; 1969; Crkvenčić & Malić, 1988; Brown, 2009).

The *developmental phase of differentiated expansion* begins with the centrifugal expansion of the phenomenon from the primary focal point in the form of a chain reaction, in what are called *diffusion waves*.² Secondary focal points of diffusion then emerge from which new, smaller diffusion waves spread. Imitation is one of the chief driving forces of spatial diffusion. Diffusion is, as a result, initially strongest in the proximity of the focal point of diffusion. On the contrary, the crop is adopted with hesitation and with ever lesser intensity in the peripheral parts of the diffusion area (Hägerstrand, 1952; Ruppert et al., 1981; Crkvenčić & Malić, 1988). The *hierarchy* and *neighbourhood effects* have an impact on differentiated expansion. The hierarchy effect is manifested by the more robust and earlier diffusion of the phenomenon in settlements with a greater level of centralisation (Fig. 2c), while the neighbourhood effect implies that the phenomenon spreads with greater intensity in settlements nearer to the focal point of diffusion (Fig. 2b) (Hägerstrand, 1967; Gould, 1969; Brown, 2009). During this developmental phase of diffusion, the highest relative number of people adopts the phenomenon. During its spread, however, the phenomenon may bypass particular areas, which may be the result of unfavourable natural characteristics, or of societal conditions in these areas (traffic-geographic isolation, traditional culture, a particular population structure, mentality of rural inhabitants, size of landholdings...). In this manner, the diffusion of any phenomenon, and in particular innovations, becomes a relevant indicator of the level of spatial development (Hägerstrand, 1952, 1967; Ruppert et al., 1981; Crkvenčić & Malić, 1988).

When a phenomenon is confirmed by its results we see a condensing, i.e. slowing of the process throughout the entire area of expansion. This is the *saturation phase of development* that marks the end of the spatial diffusion. Saturation may come about when natural conditions, the market or other reasons prevent the further development of diffusion. The number of new people that adopt the crop is rapidly reduced, and the total number of adopters stagnates, which is an indicator of the end of the process (Hägerstrand, 1952, 1967; Crkvenčić & Malić, 1988).

To achieve the study objectives, telephone surveys were conducted throughout the Kutjevo wine-growing hills and trial studies (interviews and field mapping) were performed in the municipality of Velika, which constitutes a more detailed *case study*. The telephone surveys were conducted in the town of Kutjevo and in the municipalities of Kaptol and Čaglin in the period from 24 March to 4 April of 2013. Interviews were conducted in the municipality of Velika from 15 to 30 March, while field mapping was conducted in the same municipality on 25 April 2013.

The surveyed population consisted of private commercial grapevine growers (≥ 0.5 ha vineyards) with residence in the

² *Inovacijski valovi* u Hägerstrandovu modelu (*The Propagation of Innovation Waves*, 1952.).

² *Innovation waves* in the Hägerstrand model (*The Propagation of Innovation Waves*, 1952.).

2000. – 2012. godine. Prema *Upisniku poljoprivrednih gospodarstava* na tom je području krajem 2012. godine bilo 488 registriranih vinogradara, međutim nisu svi zadovoljavali postavljene kriterije. Realni broj vinogradara koji su podigli novi vinograd teško je objektivno utvrditi, ali velika je vjerojatnost da ih je manje od 400, što je bitno za veličinu uzorka.

Prije definiranja uzorka ispitanika načinjen je popis vinogradara prema neslužbenim izvorima, budući da su ti podatci iz *Upisnika poljoprivrednih gospodarstava* nedostupni javnosti. Ispitanici za telefonsku anketu i intervju izabrani su prigodnim uzorkom. Broj ispitanika po naseljima bio je ponderiran s brojem vinogradara iz *Upisnika poljoprivrednih gospodarstava* i neslužbenog popisa te površinom vinograda iz *ARKOD*-a i katastra. Telefonskom je anketom ispitano 100, a intervjuom 30 vinogradara (od kojih 3 nije proširilo nasade pa su njihovi odgovori o početku sadnje izuzeti), što čini najmanje 26,6 % (od 488), a sigurno i znatno veći udio privatnih komercijalnih vinogradara u Vinogorju Kutjevo.

Upitnik za intervju temeljio se na pitanjima otvorenog tipa nadopunjenih slobodnim razgovorom, što je rezultiralo raznovrsnim, pa i neočekivanim odgovorima. Iz tog upitnika ekstrahirana su ključna pitanja koja su se koristila u telefonskoj anketi, omogućivši preklapanje odgovora i povećanje ukupnog uzorka. Na kraju su odgovori grupirani u tipološke razrede, kao osnova za odgovarajuće tablične prikaze.

Bitno je napomenuti da su osim spomenutog uzorka intervjuirani i područni stručnjaci za vinogradarstvo čije su procjene validne jer se temelje na bogatom iskustvu i terenskom radu. Kod istraživačkog pristupa korištena je i tipologija ruralnih područja (Lukić, 2012), čiji su krajnji tipovi omogućili uvid u dijagnostiku prostora. Ostale metode uključuju analizu i sintezu podataka iz statističkih izvora (Popis stanovništva 2011.) i katastarske dokumentacije područnog ureda u Požegi. Pritom su korištene samo nove i vrlo pouzdane reambulacije. Iz datuma geodetskog elaborata za katastarske čestice rekonstruiran je kumulativni intenzitet podizanja novih vinograda tijekom vremena. Posebno treba voditi računa da između izvora postoji razlika u metodologiji kojom su površine vinograda povezane s prostornim jedinicama. Iz ankete su podatci o površini vinograda pridruženi mjestu prebivališta ispitanika, dok su u katastru zabilježeni "de facto", tj. tamo gdje se fizički nalaze. Rezultati anketnog istraživanja dijelom su obrađeni programom *SPSS Statistics 17.0*, dok su tablični prilozi i dijagrami načinjeni u programu *Microsoft Office Excel 2010*. Kartografski prilozi načinjeni su u programima *ArcGIS 9.3.1* i *OCAD 9 Professional*.

area of the Kutjevo wine-growing hills that had planted new vineyards from 2000 to 2012. According to the *Farm Register*, there were 488 registered vineyards in the area at the end of 2012; however not all met the set criteria. It is difficult to objectively determine the actual number of grapevine growers that have raised new vineyards, though it is quite likely that there are fewer than 400, which is significant for the sample size.

Given that these data in the *Farms Register* are not publicly accessible, a list of grapevine growers was made based on unofficial sources prior to defining the sample of respondents. The respondents for the telephone survey and interviews were selected as a random sample. The number of respondents per settlement was weighted in accordance with the number of grapevine growers in the *Farm Register* and the unofficial list, and with the vineyard surface area from *ARKOD* (Land Parcel Identification System) and the cadastre. The telephone survey was performed on 100 grapevine growers, while 30 growers were interviewed (of which three did not expand their plantations; their responses on initial planting were omitted), which account for at least 26.6% (of 488), and a certainly significantly greater share of private commercial grapevine growers in the Kutjevo wine-growing hills.

The interview questionnaire was based on open type questions supplemented with free discussion, which resulted in diverse and even unexpected answers. Key questions were extracted from this questionnaire and used in the telephone survey, allowing for response overlap and an increased total sample population. Finally, responses were grouped in typological classes to create the appropriate tabular overview.

It should be noted that, in addition to the cited sample population, interviews were also conducted with regional viticulture experts, whose assessments are valid because they are based on a wealth of experience and work in the field. The rural area typology (Lukić, 2012) was also applied in the study approach, and the primary types provided insight into the diagnosis of the space. Other methods include an analysis and synthesis of data from statistical sources (2011 census) and cadastral documentation from the regional office in Požega. Only new and very reliable reambulations were used in the process. The cumulative intensity of the raising of new vineyards over time was reconstructed from the date of geodetic surveys for cadastral plots. It is of particular importance to consider the differences between sources in the methodologies by which vineyard surfaces have been linked to spatial units. Data on the surface area of vineyards from the survey were associated with the respondent's place of residence, while in the cadastre they are recorded "de facto", i.e. where they are physically located. The results of the survey were partially processed using the *SPSS Statistics 17.0* software package, while the tables and diagrams were created in *Microsoft Office Excel 2010*. Maps were created using the *ArcGIS 9.3.1* and *OCAD 9 Professional* software.

REZULTATI I RASPRAVA

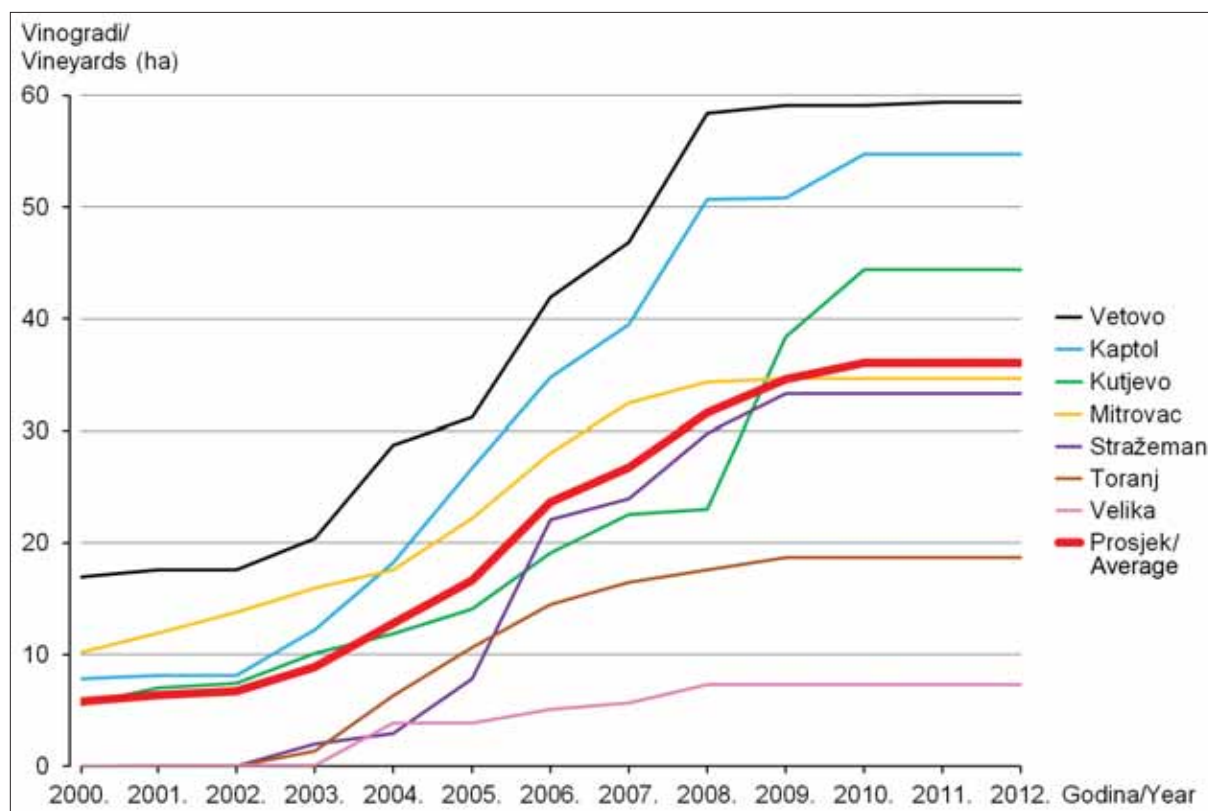
POVEĆANJE POVRŠINE VINOGRADA U VINOGORJU KUTJEVO 2000. – 2012. GODINE KAO PROSTORNA DIFUZIJA

Prije svega treba reći da ne postoji konsenzus kolika je trenutna površina vinograda u Vinogorju Kutjevo. Prema *ARKOD*-u je to 1.254,5 ha (izvor 1), prema katastru 1.835 ha (izvor 9), a procjena savjetodavne službe je između tih vrijednosti, oko 1.540 ha. Posljednja procjena je najvjerodostojnija jer se temelji na dugogodišnjem terenskom radu i iskustvu, a osim toga jedina nudi vremenski usporedive podatke. Prema njima, površina vinograda u Vinogorju Kutjevo u razdoblju 2000. – 2012. godine porasla je za 700 ha. Usto treba voditi računa da je povećanje ustvari bilanca nastala kao razlika između posađenih (900 ha) i iskrčenih vinograda (200 ha). Na Vinogorje Kutjevo otpada više od 90 %

RESULTS AND DISCUSSION

THE INCREASE IN VINEYARD SURFACE AREA IN THE KUTJEVO WINE-GROWING HILLS FROM 2000 – 2012 AS SPATIAL DIFFUSION

It should be noted, firstly, that there is no consensus on the current surface area of vineyards in the Kutjevo wine-growing hills. According to *ARKOD*, this figure is 1,254.5 ha (source 1), according to the cadastre 1,835 ha (source 9), while the estimate of the agricultural extension service is in the middle, at about 1,540 ha. The latter estimate is most credible as it is based on long-term work in the field and experience and is the only source to offer temporally comparable data. According to the extension service, the surface area of vineyards in the Kutjevo wine-growing hills increased by 700 ha in the period from 2000 – 2012. It should also be considered that this increase is in fact the balance that emerged as the difference between planted (900 ha) and cleared vineyards (200 ha).



Sl. 3. Kumulativno kretanje površina novih vinograda u oabranim katastarskim općinama Vinogorja Kutjevo u razdoblju 2000. – 2012. godine

Fig. 3. The cumulative trend in the surface area of new vineyards in selected cadastral municipalities of the Kutjevo wine-growing hills in the period from 2000 – 2012

Izvor: Popis katastarskih čestica, 2012.

Source: Register of cadastral plots, 2012

povećanja površine vinograda u cijeloj Požeško-slavonskoj županiji, a takva dominacija Kutjeva proizlazi iz vrlo povoljne prirodne predispozicije, višestoljetne tradicije i identiteta koji je neraskidivo povezan s vinovom lozom.

Intenzitet sadnje novih vinograda u Vinogorju Kutjevo tijekom promatranog vremena nije bio jednolik: u početku je bio slab, u sredini snažan i na kraju slab, tj. sličan Gaussovoj zvonolikoj distribuciji. Kad se površine novopodignutih vinograda kumuliraju (kako bi se došlo do ukupnog porasta), dobije se tzv. *S-krivulja* koja je krunski dokaz difuzijskog procesa, odnosno njegove spontanosti (sl. 3).

Najviše je vinograda posađeno između Kutjeva i Kaptola, dok ih na zapadu ima manje, pri čemu njihova površina ne opada pravilno s udaljavanjem od Kutjeva. To je posljedica nepravilnog razmještaja vinograda u vlasništvu *Kutjevo d.d.* Uslijed naknadnog upisivanja starijih vinograda u katastar radi ostvarivanja prava na redovni godišnji poticaj za proizvodnju grožđa, kod nekih je katastarskih općina zabilježeno povećanje 2000. godine. U tim slučajevima vrijednosti ne počinju od nule, ali to nema utjecaj na dokazivanje hipoteze. S obzirom da jedino katastar bilježi vremenski slijed i površinu vinograda, treba naglasiti da ovi podatci govore o stvarnoj prostornoj raspodjeli posađenih vinograda. Na prvi pogled iznenađuje činjenica da na teritoriju katastarske općine Kutjevo nije podignuto najviše vinograda, no to je posljedica više cijene zemljišta u odnosu na okolicu.

NOSITELJI PROSTORNE DIFUZIJE VINOGRADA U VINOGORJU KUTJEVO

Kako bi se dobio uvid u empirijske zakonitosti difuzije te dala ocjena stanja i mogućnosti za razvoj ruralnog prostora Vinogorja Kutjevo, nužno je napraviti presjek obilježja subjekata vinogradarske proizvodnje. Dobni sastav ispitanika je pomalo pesimističan, naročito u slučajevima kad potomstvo neće nastaviti proizvodnju. Čak je 57,7 % nositelja gospodarstva starije od 50 godina pa je i njihova medijska dob iznimno visoka, 51 godinu. Ako pretpostavimo da su vinogradari zbog visokoga fizičkog i ekonomskog intenziteta proizvodnje nešto vitalniji od prosječnih poljoprivrednika, ovako porazne brojke samo nameću pitanje o stanju u drugim granama poljoprivrede! Ipak, tješi dobna struktura svih članova kućanstva u kojima je samo 6,5 % osoba starije od 65, a više od 30 % mlađe od 20 godina.

Obrazovanost je vinogradara znatno povoljnija od njihova dobnog sastava. Više od polovine ispitanika ima završenu srednju školu, dok je znatan udio (21,5 %) s visokom i višom stručnom spremom. Manje od četvrtine ispitanih vinogradara ima osnovnu ili nižu razinu obra-

Over 90% of the increase in the surface area of vineyards in the whole of Požega-Slavonia County is accounted for in the Kutjevo wine-growing hills; this domination of Kutjevo arises from its very favourable natural predispositions, many centuries of tradition and identity, indelibly linked to the grapevine.

The intensity of the planting new vineyards in the Kutjevo wine-growing hills over the observation period was not uniform: initially, it was very weak, robust in the middle stage, and weak again at the final stage, i.e. similar to the Gauss bell curve distribution. When the surface area of newly raised vineyards is cumulated (in order to obtain the total increase), the S-curve is obtained, which is critical proof of the diffusion process, i.e. of its spontaneity (Fig. 3).

Most of the vineyards were planted between Kutjevo and Kaptol, while there are fewer to the west, though the surface areas were not reduced proportionally with increasing distance from Kutjevo. This is the result of the uneven distribution of vineyards owned by *Kutjevo d.d.* An increase was observed in some cadastral municipalities in 2000 as a result of the later registration of older vineyards in the cadastre with the objective of acquiring the right to a regular annual subsidy for the production of grapes. In these cases, the values do not start at nil, though this has no impact on proving the hypothesis. Considering that only the cadastre notes the chronological sequence and the surface area of vineyards, it should be emphasised that these data tell of the actual spatial distribution of the vineyards planted. At first glance, the fact that the greatest number of vineyards was not raised on the territory of the cadastral municipality of Kutjevo seems surprising, though this is the result of higher land prices in relation to the surrounding area.

THE PRINCIPALS OF THE SPATIAL DIFFUSION OF VINEYARDS IN THE KUTJEVO WINE REGION

In order to gain insight into the empirical laws of diffusion and to provide an assessment of the situation and opportunities for the development of the rural areas of the Kutjevo wine-growing hills, a cross section is required of the characteristics of the subjects of viticulture production. The age composition of the respondents was somewhat pessimistic, especially in cases when descendants do not intend to continue production. As many as 57.7% of the principals on farms are older than 50 years, with a median age at a very high 51 years. If we assume that grapevine growers are, as a result of the high level of physical and economic intensity of production, somewhat more vital than the average farmer, these dismal figures only raise the question of the situation in other branches of farming! The age structure of all members of the household are, however, consoling as only 6.5% are over the age of 65, and over 30% are under the age of 20.

The level of education among grapevine growers is much more favourable than their age composition. Over half of the respondents have completed secondary school, while a significant share (21.5%) have a university or college degree. Less than a quarter of the respondent grapevine growers have only primary

zovanja, što se uglavnom odnosi na osobe starije životne dobi. Za usporedbu, na tom je području 2011. godine 44,1 % muških stanovnika imalo završenu ili nezavršenu osnovnu školu, a samo 6,3 % višu ili visoku spremu (izvor 6). Visoke kompetencije kojima raspolažu vinogradari i vinari svjedoče da se tim djelatnostima ne može baviti baš svatko. Osim toga, vidljivo je da bavljenje vinogradarstvom i vinarstvom nije neobično za fakultetski obrazovane osobe, nego dapače predstavlja odanost prema tradiciji i rodnoj grudi.

Važno je promotriti i površinu vinograda kojom su raspolagali ispitani vinogradari 2000. i 2012. godine. Na početku razdoblja 41 % ispitanika imalo je manje od 0,5 ha vinograda. Prosječna veličina nasada bila je 1,1 ha, a ukupno su raspolagali sa 142 ha. Danas imaju ukupno 434 ha, odnosno 3,3 ha u prosjeku, a srednje povećanje po vinogradaru iznosi 2,2 ha.

POČETAK ŠIRENJA VINOGRADA U VINOGRORJU KUTJEVO U RAZDOBLJU 2000. – 2012. GODINE

Prvo treba odrediti izvore informacija koji su doveli do početnog stupnja prostorne difuzije vinograda (tab. 1).

Rezultati potvrđuju pretpostavku modela o najvećoj važnosti osobnih kontakata u početnoj fazi širenja (Hägerstrand, 1952, 1967; Crkvenčić i Malić, 1988). Specifičan informacijski utjecaj *Kutjeva d.d.* otkriva da je Kutjevo bilo difuzijsko žarište cijelog Vinogorja te da je kasnije širenje bilo uvelike pod njegovim utjecajem. Među izvorima informacija zanemareni su odgovori o vlastitoj odluci (31 %) jer je apsolutno jasno da je svatko odlučio u svoje ime (Ruppert i dr., 1981). Ispitanici su vjerojatno tako odgovorili zbog nerazumijevanja pitanja, ali i određene doze ponosa koja nije dopustila priznati da su vanjske informacije imale utjecaj na njihovu odluku.

Nakon utvrđivanja glavnih izvora informacija kojima su bili izloženi nositelji difuzijskog širenja, slijedi utvrđivanje motivirajućih čimbenika koji su bili dovoljno snažni za pokretanje odluke i akcije sadnje vinograda (tab. 2).

Glavni motivi za sadnju komercijalnih vinograda u početnom stupnju bili su ekonomske i egzistencijalno-socijalne naravi, kao što ih ime opisuje. Iz tih se motiva iščitava tadašnja glavna komparativna prednost kulture vinove loze, isplativost. Upravo je veliki dohodak ostvaren kod manjeg broja vinogradara udružen s djelovanjem primarnoga difuzijskog žarišta potaknuo kasniju masovnu fazu diferenciranog širenja vinograda.

Treća po važnosti skupina odgovora odnosi se na sentimentalne razloge i želju za nastavkom tradicije. Višestruko je indikativan odgovor jednog ispitanika koji je rekao da mu je "vinograd ušao u krv". Znatno

school or lower level of education, which pertains primarily to the elderly persons. For the sake of comparison, in this area in 2011, 44.1% of male inhabitants had a completed or incomplete primary school education, and only 6.3% had a university or college degree (source 6). The high level of competence possessed by grapevine growers and wine-makers bears witness to the fact that not everyone is up to the task. It is, besides, evident that engaging in grapevine growing and wine production is not unusual for persons with a university education, but rather constitutes a loyalty towards tradition and the birthplace.

Also noteworthy is the surface area of vineyards at the disposal of grapevine growers in the year 2000 and in 2012. At the beginning of the period, 41% of respondents had less than 0.5 ha of vineyards. The average plantation size was 1.1 ha, with a total of 142 ha at their disposal. They now have a total of 434 ha, i.e. 3.3 ha on average, with a median increase per grapevine growers of 2.2 ha.

THE BEGINNINGS OF VINEYARD EXPANSION IN THE KUTJEVO WINE-GROWING HILLS IN THE PERIOD FROM 2000 – 2012

The sources of information that led to the initial phase of the spatial diffusion of vineyards first need to be identified (Table 1).

The results confirm the hypothesis of the model of the greatest importance of personal contacts in the initial phase of expansion (Hägerstrand, 1952, 1967; Crkvenčić & Malić, 1988). The specific information impact of the *Kutjevo d.d.* company reveals that Kutjevo was the focal point of diffusion for the entire wine-growing hills area and that the subsequent expansion was largely under its influence. Among the sources of information, we ignored answers that it was one's own decision to plant new vines (31%), as it is absolutely clear that everyone decides on their own behalf (Ruppert et al., 1981). Respondents likely answered in this manner because they misunderstood the question, but also as a result of a certain dose of pride that did not allow them to concede that external information had an impact on their decision.

The identification of the chief sources of information to which the principals of diffusion expansion were exposed was followed by a determination of the motivating factors that were sufficiently strong to precipitate a decision and the action of planting a vineyard (Table 2).

The chief motivations for the planting of commercial vineyards in the initial phase were of an economic and existential-societal nature, as their names describe them. The then chief comparative advantage of the grapevine crop, profitability, is evident from these motivations. It was in fact the significant earnings achieved among a small number of grapevine growers, and the activity of the primary focal point of diffusion, that encouraged the later mass phase of the differentiated expansion of vineyards.

The third most important group of answers pertains to sentimental reasons and the desire to continue tradition. The answer of one respondent that the "vineyard was in his blood" is indica-

Tab. 1. Izvori informacija u početnom stupnju širenja komercijalnih vinograda

Izvori informacija	Odgovori (%)
Socijalna mreža <i>prijatelji, susjedi, rođaci, poznanici</i>	49,49
Kutjevo d.d./PPK Kutjevo <i>zaposlenost, rad na zakupu, kooperacija, marketing, stručnjaci</i>	34,02
Edukacija <i>savjetodavna služba, skupovi, općina i literatura</i>	9,28
Mediji <i>mediji, TV, sredstva javnog priopćavanja</i>	7,22

Izvor: Telefonsko i terensko anketno istraživanje, 15. 3. – 4. 4. 2013. godine

Napomena: Postotci predstavljaju udio pojedinog odgovora u ukupnom broju razmatranih odgovora; tekst napisan kurzivom predstavlja odgovore ispitanika.

Table 1. Sources of information in the initial stage of expansion of commercial vineyards

Source of information	Responses (%)
Social networks <i>friends, neighbours, relatives, acquaintances</i>	49.49
Kutjevo d.d./PPK Kutjevo <i>employment, work on leased land, cooperation, marketing, experts</i>	34.02
Education <i>advisory services, meetings, municipality and literature</i>	9.28
Media <i>media, TV, public information means</i>	7.22

Source: Telephone and field surveys, 15 March – 4 April 2013

Notes: Percentages represent the share of individual responses in the total number of examined responses; text in italics represents the responses of those surveyed.

Tab. 2. Motivacija za sadnju vinograda u početnom razvojnom stupnju difuzije

Motivacija za sadnju vinograda	Odgovori (%)
Ekonomski razlozi – povećanje dohotka <i>visoka cijena grožđa, zarada, novac, državni poticaji za sadnju (40.000 kn/ha), dodatni prihod, povećanje proizvodnje grožđa i vina, proizvodnja vina, potražnja za vinom i grožđem na tržištu, siguran otkup grožđa, intenzivnija proizvodnja te veća isplativost u odnosu na druge poljoprivredne kulture i djelatnosti, posjedovanje mehanizacije</i>	46,50
Egzistencijalno-socijalni razlozi – zadovoljenje funkcija opstojanja <i>nešto se mora raditi, egzistencija, životno opredjeljenje, struka, promjena posla, nužda, nezaposlenost, odlazak u mirovinu, posjedovanje znanja, želja za samostalnošću, dobitak nasljedstva, dugoročan i zajednički obiteljski posao, omogućavanje školovanja, zaposlenja ili nasljedstva za potomstvo, budućnost, sigurniji i bolji život</i>	22,50
Sentimentalni razlozi i obiteljska tradicija <i>ljubav prema vinogradu i vinu, želja za nastavkom tradicije, utjecaj roditelja i predaka</i>	12,00
Zemljište <i>pogodno za vinogradarstvo, nepogodno za druge kulture, položaj, veličina parcele</i>	9,00
Rekreacija – hobi-poljoprivreda <i>višak slobodnog vremena, nova zanimacija, hobi, rekreacija</i>	4,50
Obnova i modernizacija vinograda <i>zamjena starog vinograda radi promjene sortimenta, povećanja kvalitete, lakše obrade, povećanja prinosa i rentabilnosti</i>	2,50
Ostalo <i>buduća ograničenja EU, pohlepa, spor sa zemljištem, Kutjevo – vinska metropola, podneblje, lijepa priča</i>	3,00

Izvor: Telefonsko i terensko anketno istraživanje, 15. 3. – 4. 4. 2013. godine

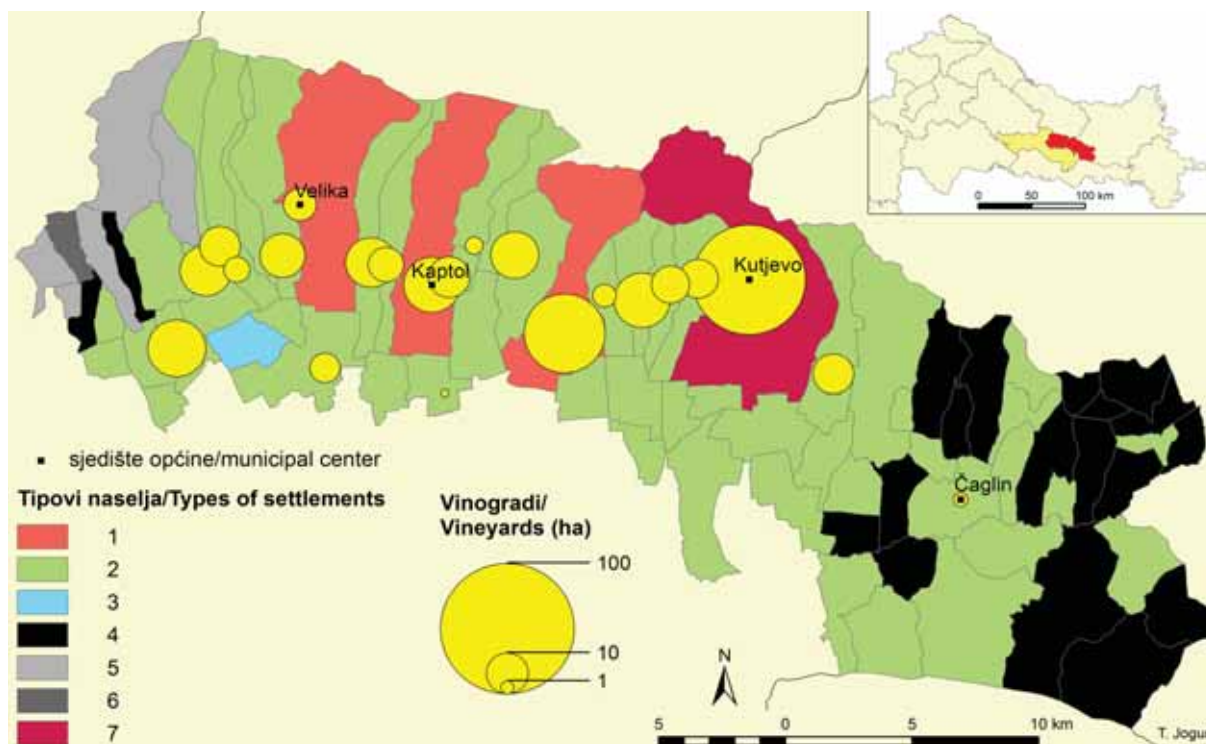
Napomena: Postotci predstavljaju udio pojedinog odgovora u ukupnom broju svih odgovora; tekst napisan kurzivom predstavlja odgovore ispitanika.

Table 2. Motivation for the planting of vineyards in the initial diffusion stages

Motivation for planting vineyards	Responses (%)
Economic reasons – increasing earnings <i>high price of grapes, earnings, money, state subsidies for planting (40,000 HRK/ha), additional revenues, increasing grape and wine production, wine production, market demand for wine and grapes, certain grape buy-offs, intensifying production and greater payoffs in comparison to other agricultural cultures and activities, possession of mechanisation</i>	46.50
Existential and social reasons – meeting the survival functions <i>have to do something, existence, life's dedication, profession, change of work, necessity, unemployment, going into retirement, having knowledge, desire for independence, obtaining an inheritance, long-term and common family business, enabling education, employment or heritage for future generations, the future, more secure and better life</i>	22.50
Sentimental reasons and family tradition <i>love for vineyards and wine, desire to continue tradition, influence of family and ancestors</i>	12.00
Lands <i>suitable for grape growing, unsuitable for other cultures, position, size of plot</i>	9.00
Recreation – agricultural hobby <i>excess leisure time, new interests, hobby, recreation</i>	4.50
Renewing and modernising vineyards <i>replacing old vineyards to change the variety grown there, improving quality, easier handling, increasing yields and profits</i>	2.50
Other <i>future EU restrictions, greed, land disputes, Kutjevo – a wine metropolis, the region, a nice story</i>	3.00

Source: Telephone and field surveys, 15 March – 4 April 2013

Notes: Percentages represent the share of individual responses in the total number of examined responses; text in italics represents the responses of those surveyed.



Sl. 4. Širenje vinograda (ha) po tipovima naselja u Vinogorju Kutjevo 2000. – 2012. godine

1 – dinamična, strukturno jača naselja; 2 – tržišno orijentirana poljoprivredna naselja; 3 – ekonomski diverzificirana naselja; 4 – naselja ruralne periferije; 5 – ostala izvangradska naselja; 6 – naselja bez stanovnika; 7 – gradovi

Fig. 4. The expansion of vineyards (ha) by settlement type in the Kutjevo wine-growing hills from 2000 – 2012

1 – dynamic, structurally more robust settlements; 2 – market-oriented farming settlements; 3 – economically diversified settlements; 4 – settlements of the rural periphery; 5 – other extra urban settlements; 6 – uninhabited settlements; 7 – towns

Izvor: prema Lukić, 2012.; telefonsko i terensko anketno istraživanje, 15. 3. – 4. 4. 2013. godine

Source: according to Lukić, 2012.; Telephone and field survey research, 15 March – 4 April 2013

udio odgovora navodi i pogodnost/nepogodnost zemljišta kao važan faktor koji je utjecao na odluku o podizanju vinograda. Posebno su zanimljivi rijetki odgovori u kojima ispitanici vinogradima pridaju funkciju ponašanja u slobodno vrijeme (rekreacije). Jedan od njih to elaborira ovako: "U vinogradu si dam oduška od gužve i stresa na stalnom poslu, a svaka dodatna kuna dobro dođe u džep." Rekreativna funkcija vizualno se najviše očituje gradnjom vikendica u vinogradima.

*DIFERENCIJANO ŠIRENJE VINOGRADA U
VINOGORJU KUTJEVO U RAZDOBLJU
2000. – 2012. GODINE*

Poslije formiranja primarnoga difuzijskog žarišta uslijedili su valovi najmasovnijega podizanja vinograda u tzv. stupnju diferenciranog širenja. Za analizu geografskih uvjeta diferenciranog širenja vinograda u Vinogorju Kutjevo poslužit će tipologija ruralnih područja (sl. 4).

tive in many aspects. A significant number of answers cite the suitability/unsuitability of land parcels as an important factor impacting the decision to raise a vineyard. Of particular interest are the rare answers in which respondents attribute the functions of free time activity (recreation) to vineyards. One respondent elaborated as follows: "In the vineyard I allow myself a break from the crowds and stress at my day job, and every extra kuna earned is welcome." The recreation function is visually most evident in the erection of weekend cottages in the vineyards.

*THE DIFFERENTIATED EXPANSION OF VINEYARDS
IN THE KUTJEVO WINE-GROWING HILLS
IN THE PERIOD FROM 2000 – 2012*

The formation of the primary focal point of diffusion was followed by waves of the most massive raising of vineyards in the "differentiated expansion phase". The rural area typology will be applied in the analysis of the geographic conditions for the differentiated expansion of vineyards in the Kutjevo wine-growing hills (Fig. 4).

Analiza započinje naseljima u kojima je došlo do širenja komercijalnih vinograda 2000. – 2012. godine. Ta naselja prema tipologiji u potpunosti pripadaju kategorijama *gradova*, *dinamičnih*, *strukturno jačih naselja* i većim dijelom *tržišno orijentiranih poljoprivrednih naselja*. Na razini Vinogorja Kutjevo zajedničke su im osobine da imaju izrazito povoljne prirodne predispozicije za fenološki razvoj vinove loze, kao što su južno eksponirane padine Papuka i Krndije, klimatski uvjeti (godišnji hod insolacije, temperature i padalina) te antropogeni pedološki supstrat (*vitisol*³ i *rigosol*⁴) (Božičević i dr., 2011). Povoljne su i opće razvojne osobine tih naselja, kao što su stupanj centraliteta, dobna i socijalno-ekonomska struktura (vitalnije stanovništvo spremno na promjene i investicije), dobra prometna povezanost (jači tokovi informacija) i infrastrukturna opremljenost.

Pri pogledu na prikaz ističe se Kutjevo u kategoriji grada kao primarno difuzijsko žarište cijeloga Vinogorja, budući da ima najveći stupanj centraliteta te koncentraciju stanovništva i funkcija. Kutjevo ima i najdulju tradiciju jer su još 1232. godine cisterciti osnovali posjed na čijim se temeljima razvila današnja tvrtka *Kutjevo d.d.*, koja raspolaže daleko najvećim vinogradima dislociranim na istoku (upravni grad Kutjevo) i zapadu (općina Velika) (Vranić, 2011).

Iz primarnog se difuzijskog žarišta razvila ekspanzija i stvaranje sekundarnih žarišta pod utjecajem efekta hijerarhije i susjedstva. Hijerarhijski se efekt očitovao u tome da su više vinograda u odnosu na okolicu posadili stanovnici iz Vetova i Kaptola, dinamičnih i strukturno jačih naselja. Na njima se vrlo pravilno pokazuje učinak susjedstva jer se površina novoposađenih vinograda smanjuje s udaljavanjem od primarnog žarišta. Nakon sekundarnih difuzijskih žarišta, učinak susjedstva zahvatio je naselja u zaleđima koja pripadaju tržišno orijentiranim poljoprivrednim naseljima. U toj kategoriji pod utjecajem susjedskog efekta prednjače naselja Hrnjevac, Mitrovac, Podgorje, Venje, Komarovci i Bektež koja se nalaze između ili u blizini primarnog (Kutjevo) i najjačega sekundarnog žarišta (Vetovo).

Na zapadu Vinogorja, tržišno orijentirana poljoprivredna naselja Toranj i Biškupci imaju veću površinu vinograda od Velike koja je dinamično i strukturno jače naselje. Vinogradari iz ta dva naselja bili su najbliže izvoru informacija s tamošnjih plantaža *Kutjeva d.d.* na kojima su radili.

Dijametralno suprotan aspekt geografske analize prostora Vinogorja Kutjevo fokusirat će se na rubna naselja koja nisu prihvatila uzgoj vinove loze. Ta naselja u potpunosti pripadaju tipovima *ruralne periferije*, *ostalih (malih*,

The analysis began with settlements in which there has been an expansion of commercial vineyards in the period from 2000 to 2012. These settlements in terms of typology fell entirely under the categories of *towns*; *dynamic*, *structurally more robust settlements*, and for the most part *market-oriented farming settlements*. At the level of the Kutjevo wine-growing hills, their common characteristic is that they have exceptionally favourable natural predispositions for the phenological development of grapevines, such as the southern exposure of the slopes of Papuk and Krndija, climatic conditions (the annual insolation, temperature and precipitation levels) and the anthropogenic pedological substrate (*vitisol*³ and *rigosol*⁴) (Božičević et al., 2011). The general developmental attributes of these settlements are also favourable, such as the level of centralisation, the age and socio-economic structure (a more vital population ready for change and investment), good traffic connections (more robust information flows) and the level of infrastructural development.

In the overview, Kutjevo stands out in the towns category as the primary focal point of diffusion for the entire wine-growing hills area, given that it has the greatest level of centralisation and concentration of population and functions. Kutjevo also has the longest tradition – it was here in 1232 that the Cistercians established an estate on the foundations of which the current *Kutjevo d.d.* company emerged, operating the by far largest vineyards dislocated to the east (town of Kutjevo) and the west (municipality of Velika) (Vranić, 2011).

Expansion and the creation of secondary focal points developed from the primary focal point of diffusion under the influence of the hierarchy and neighbourhood effects. The hierarchy effect was manifested in the fact that, in relation to their surroundings, more vineyards were planted by the inhabitants of Vetovo and Kaptol – dynamic and structurally more robust settlements. The neighbourhood effect was clearly demonstrated on them because the surface area of newly planted vineyards drops with increasing distance from the primary focal point. After the secondary focal points of diffusion, the neighbourhood effect spread to settlements further away that are among the market-oriented farming settlements. The settlements of Hrnjevac, Mitrovac, Podgorje, Venje, Komarovci and Bektež – located between or near the primary (Kutjevo) and strongest secondary (Vetovo) focal points – are at the forefront of this category in terms of the impact of the neighbourhood effect.

In the west of the wine-growing hills area, the market-oriented farming settlements of Toranj and Biškupci have a greater vineyard surface area than does Velika, which is a dynamic and structurally more robust settlement. Grapevine growers from these two settlements were closest to information from the local *Kutjevo d.d.* plantations on which they worked.

A diametrically opposite aspect of geographical analysis of the space of the Kutjevo wine-growing hills will be focused on the peripheral settlements that did not adopt the cultivation of

³ lat. *vitis*, *-is*, *f.* – vinova loza + *solum*, *-i*, *n.* – zemlja, polje, njiva, zemljište (izvor 4).

⁴ franc. *rigoleur*, *-euse*, *f.* – plug za pravljenje odvodnih kanala (izvor 8).

³ lat. *vitis*, *-is*, *f.* – grapevine + *solum*, *-i*, *n.* – soil, field, tilled ground, land (source 4).

⁴ franc. *rigoleur*, *-euse*, *f.* – a plough for making drainage canals (source 8).

slabo infrastrukturno opremljenih naselja), naselja bez stanovnika, ekonomski diverzificiranih naselja i dijelom tržišno orijentiranih poljoprivrednih naselja.

Kod naselja ruralne periferije i ostalih malih naselja Vinogorja Kutjevo naglašeni su nepovoljni prirodni i društveni preduvjeti svekolikog razvoja, a time i prihvaćanja vinove loze. Prirodnogeografski su to brdsko-planinska područja (zapad općine Velika, sjever općine Čaglin), k tome još na osoju (jug općine Čaglin) što predstavlja značajno ograničenje razvoja vinogradarstva (sl. 4 i 1). U tim su područjima i slabije plodna tla na kojima uspijevaju šume i travnjaci povoljniji za ekstenzivno stočarstvo. Demografski su to mala naselja sa starim stanovništvom u kojima se jako smanjila razina socijalne energije, tj. nije imao tko prihvatiti uzgoj vinove loze. Iz demografske ostarjelosti tih naselja proizlazi inercija prema usvajanju promjena i nedostatak poduzetničkog duha, tj. dosljedno se poštuje tradicija bavljenja drugim granama poljoprivrede. Mnoga naselja na zapadu općine Velika još uvijek osjećaju i negativne posljedice devastacije iz Domovinskog rata. Također je bitna i prometna izoliranost zbog koje tokovi informacija zaobilaze ova područja. Ne smije se na kraju izostaviti ni etnički sastav naselja u kojima je veći udio srpskog stanovništva, koje više preferira ekstenzivno stočarstvo i uzgoj primjerice šljiva nego vinove loze.

Naselja bez stanovnika nisu ni mogla sudjelovati u prostornoj difuziji vinograda. Tipu ekonomski diverzificiranih, pretežito turističkih naselja pripada jedno malo naselje: Antunovac. To je naselje svojevrsan "uljez" koji u ovom slučaju očito pokazuje više ograničavajućih nego poticajnih čimbenika za razvoj vinogradarstva.

Još je preostalo objasniti zašto dio tržišno orijentiranih naselja nije prihvatio komercijalne vinograde. To su pojedina naselja na jugu teritorija upravnoga grada Kutjeva, položena na nižoj nadmorskoj visini koja predstavlja otegotni faktor za razvoj vinogradarstva. Ondje su istodobno kvalitetnija tla koja podržavaju uzgoj ostalih komercijalnih poljoprivrednih kultura. Druga grupa tržišno orijentiranih poljoprivrednih naselja u kojima nije zaživjelo vinogradarstvo nalazi se u općini Čaglin i na zapadu općine Velika, u blizini naselja ruralne periferije. Ta činjenica upućuje da spomenuta tržišno orijentirana poljoprivredna naselja slijede trend približavanja kategoriji ruralne periferije.

Na temelju prethodno iznesenog proizlazi sinteza: jezgri Vinogorja Kutjevo pripadaju naselja u kojima je došlo do širenja komercijalnih vinograda, a periferiji pripadaju naselja u kojima nije došlo do toga. S obzirom na svekoliku (gospodarsku, kulturnu i prirodnu) važnost vinove loze u Vinogorju Kutjevo, ovakva regionalna struktura je opravdana.

grapevine. These settlements fall entirely under the *rural periphery, other (small, settlements with poor infrastructural development), uninhabited settlements, economically diversified settlements* and partly to the *market-oriented farming settlements*.

Unfavourable natural and societal preconditions for development overall, and thereby for the adopting of grapevine, are prominent among the settlements of the rural periphery and other small settlements within the Kutjevo wine-growing hills. In terms of their natural geography, these are highland-mountainous regions (west of the municipality of Velika, north of the municipality of Čaglin), and moreover are in shaded areas (south of the municipality of Čaglin), which constitutes a significant obstacle to the development of viticulture (Figs. 1 and 4). These areas also have less fertile soils on which forests and meadows flourish, favourable to extensive animal husbandry. In terms of their demography, these are small settlements with an elderly population with a greatly reduced level of societal energy, i.e. there was no one to adopt the cultivation of grapevine. Inertia towards the adopting of change and a lack of entrepreneurial spirit has emerged as a result of the demographic aging of these settlements, i.e. there is an unswerving respect of the traditions of involvement in other branches of farming. Many of the settlements in the west of the municipality of Velika are still feeling the negative consequences of the devastation during the Homeland War. Traffic isolation is also a significant factor, with information flows bypassing these areas. Finally, the ethnic composition of the settlements, in which there is a greater share of ethnically Serbian inhabitants, who prefer the cultivation of plums to grapevine cultivation, should not be ignored.

Uninhabited settlements could not have participated in the spatial diffusion of vineyards. Only one small settlement, Antunovac, is numbered among the economically diversified, predominantly tourism industry oriented settlement type. This settlement is an "intruder" of sorts that, in this case, clearly demonstrates more limiting than encouraging factors for the development of viticulture.

It remains to be explained why a part of the market-oriented settlements did not adopt commercial vineyards. These are individual settlements to the south of the territory of the town of Kutjevo, situated at a lower altitude, which represents a limiting factor to the development of viticulture. They also have quality soils that support the cultivation of other commercial agricultural crops. The second group of market-oriented farming settlements where viticulture has not taken root is in the municipality of Čaglin and in the western part of the municipality of Velika, near the settlements of the rural periphery. This fact suggests that the cited market-oriented farming settlements are following the trend of convergence with the rural periphery category.

A synthesis arises from the above: the core of the Kutjevo wine-growing hills includes settlements in which there has been an expansion of commercial vineyards, while the periphery includes settlements in which this has not been the case. Considering the overall (economic, cultural and natural) significance of the grapevine in the Kutjevo wine-growing hills area, this regional structure is justified.

PRESTANAK ŠIRENJA VINOGRADA
U VINOGORJU KUTJEVO
U RAZDOBLJU 2000. – 2012. GODINE

Kada se pojava prostorno raširila do krajnjih granica uslijedilo je usporavanje i zaustavljanje procesa u stupnju zasićenja. Koloplet čimbenika koji je doveo do prestanka širenja komercijalnih vinograda prikazan je u tab. 3.

Glavni razlozi prestanka širenja novih vinograda u razvojnom stupnju zasićenja bili su slični početnim motivirajućim čimbenicima, samo što su suprotnoga predznaka. Zbog ekspanzivnog, gotovo stihijskog porasta vinograda došlo je do hiperprodukcije i povećanja ponude. To je u uvjetima tržišnog monopolizma dovelo do nesigurnog otkupa i višestrukog pada cijene grožđa. Potom su nastupili opća ekonomska kriza, prestanak poticaja za sadnju te poskupljenje proizvodnje (repro-materijal i energenti) koji su uzrokovali neisplativost vinogradarske proizvodnje. O trenutnoj destimulativnosti vinogradarske proizvodnje, kao uostalom i cijele hrvatske poljoprivrede, ne treba dodati ništa više nego aforizam jednog od ispitanika: *“Bolje je gladan ležati nego gladan raditi.”*

Osim ekonomskih razloga, završetak širenja vinograda djelomično je bio uzrokovan nedostatkom vremena te zadovoljenjem vinogradarskih ambicija. Naime, intenzivna kultura kao što je vinova loza zahtijeva potpunu predanost koju je teško paralelno ostvariti uz stalno zaposlenje, o čemu svjedoči i poslovična lamentacija većeg broja ispitanika kako *“Vinograd treba slugu, a ne gospodara.”*

Sljedećoj skupini pripadaju demografski i obiteljski razlozi koji su naročito zabrinjavajući jer uglavnom spominju ulazak u treću životnu dob kao čimbenik prestanka sadnje vinograda. Bilo je tu doista snažnijih riječi, kao npr.: *“Mandat mi je pri kraju.”* ili *“Moje vrijeme je prošlo.”* To ipak nije potpuni kraj obiteljskoga gospodarstva u slučaju kad *“potomstvo preuzima proizvodnju.”* Međutim, puno su bili češći suprotni odgovori da je *“potomstvo odselilo ‘trbuhom za kruhom’ jer od vinogradarstva nema kruha.”* Nešto manje važni faktori bili su nedostatak pogodnoga zemljišta te administrativna ograničenja. Među ostalim razlozima prestanka širenja vinograda našao se i trivijalan razlog koji glasi: *“Ne mogu više popiti”*. Bila to šala ili ne, pokazuje koliko je proces prostorne difuzije stohastičan, odnosno nepredvidljiv.

POSljedICE ŠIRENJA VINOGRADA U VINOGORJU
KUTJEVO U RAZDOBLJU 2000. – 2012. GODINE

Posljedice širenja novih vinograda u Vinogorju Kutjevo bile su mnogobrojne, ali najočiglednija je transformacija agrarnog pejzaža zbog promjene načina korištenja zemljišta te povećanje broja gospodarstava koja se

THE CESSATION OF THE EXPANSION OF VINEYARDS
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IN THE PERIOD FROM 2000 – 2012

The spread of the phenomenon to its outer limits was followed by a slowing and cessation of the process in the saturation phase. The combination of factors that led to the cessation of the expansion of commercial vineyards is shown in Table 3.

The chief reasons for the cessation of the expansion of new vineyards in the saturation development phase were similar to the initial motivating factors, only with an opposite denomination. The expansive, almost chaotic growth of vineyards led to overproduction and increase in supply. In conditions of market monopolism, this led to uncertainty in buyoffs and a multi-fold drop in the price of grapes. This was followed by the general economic crisis, the cessation of subsidies for planting and increases in production costs (production material and energy) that in turn led to the unprofitability of viticulture production. No more needs to be said about the current unstimulating nature of viticulture production, or of farming in Croatia in general, than an aphorism expressed by one of the respondents: *“It's better to be hungry while lying down than to be hungry while working.”*

Other than the economic reasons, the cessation of the expansion of vineyards was also partially caused by a lack of time and the satisfaction of viticulture ambitions. An intensive crop like grapevine, namely, requires complete dedication, which is difficult to achieve parallel to a permanent job, also seen in the proverbial lamentation of a great number of respondents that *“a vineyard demands a servant, not a master”*.

The following group falls under the category of demographic and family-related reasons, which are particularly troubling as they, for the most part, tell of entering the third phase of life as a factor in the cessation of vineyard planting. There were many strong words here, such as: *“My stint is near its end,”* or *“My time has passed.”* This is not, however, the utter end of family farms in cases when the *“progeny assumes the reins of production.”* There were, however, many more answers to the contrary, to the effect that the *“descendants have moved ‘to win their bread’ elsewhere because there's no bread in viticulture.”* Somewhat less important factors include the lack of suitable land parcels and administrative barriers. Among the other reasons for the cessation of the expansion of vineyards was the trivial *“I can't drink any more.”* A jest or not, it does indicate to what extent the process of spatial diffusion is stochastic, i.e. unpredictable.

THE OUTCOMES OF THE EXPANSION OF
VINEYARDS IN THE KUTJEVO WINE-GROWING
HILLS IN THE PERIOD FROM 2000 – 2012

The outcomes of the expansion of new vineyards in the Kutjevo wine-growing hills were numerous, but the most evident was the transformation of the agrarian landscape as a result of the change in the methods of land use and the increase

Tab. 3. Razlozi prestanka sadnje vinograda u završnom stupnju difuzije

Razlozi prestanka sadnje vinograda	Odgovori (%)
Ekonomski razlozi – gospodarska kriza i neisplativost proizvodnje <i>neisplativost, niska cijena grožđa, veliki troškovi proizvodnje (repromaterijal i energenti), nesiguran otkup i plasman grožđa na tržište, neredovita isplata, prestanak poticaja za sadnju, gospodarska kriza, krediti i strah od zaduživanja, jeftinija kupovina grožđa za proizvodnju vina, nameti, zasićenost tržišta, crno tržište, loše stanje u poljoprivredi</i>	45,06
Egzistencijalno-socijalni razlozi – nedostatak vremena zbog zaposlenja <i>zaposlenost u poduzeću ili drugim djelatnostima, nedostatak vremena ili radne snage, zadovoljenje vlastitih potreba, nedostatak motivacije, narušavanje međuljudskih odnosa, neizvjesnost budućnosti</i>	17,58
Demografski i obiteljski razlozi – slabljenje vitalnosti <i>ulazak u stariju životnu dob, narušeno zdravlje, nedostatak interesa kod potomstva za nastavkom proizvodnje, odlazak potomstva, prepuštanje vinograda potomstvu</i>	14,29
Zemljište <i>nedostatak ili usitnjenost slobodnog zemljišta</i>	9,34
Administrativni razlozi – ograničenja trenutne i buduće političke uprave <i>loša vlast i politika, regionalno zaostajanje Slavonije, administracija, registracija radnika, ograničenja EU, porezi, nedostatak reda</i>	9,34
Prirodni rizici <i>elementarne nepogode, nesiguran prinos, tvornica pod vedrim nebom</i>	1,65
Ostalo <i>vinogradarstvo kao hobi, svi se bave "vinarstvom", ne mogu više popiti</i>	2,75

Izvor: Telefonsko i terensko anketno istraživanje, 15. 3. – 4. 4. 2013. godine

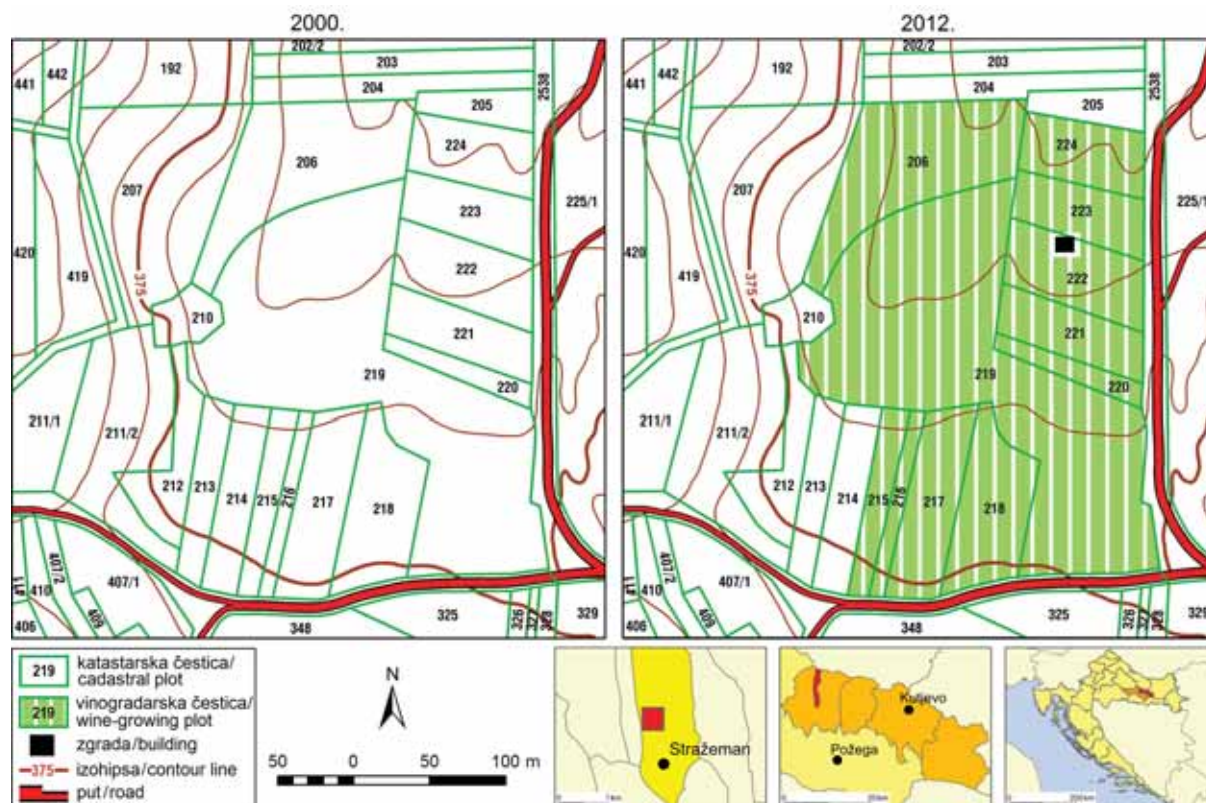
Napomena: Postotci predstavljaju udio pojedinog odgovora u ukupnom broju svih odgovora; tekst napisan kurzivom predstavlja odgovore ispitanika.

Table 3. Reasons to stop planting vineyards in the final diffusion stage

Reasons to stop planting vineyards	Responses (%)
Economic reasons – economic crisis and unprofitable production <i>unprofitable, low price of grapes, large production costs (repromaterials and energy sources), uncertain buyoffs and market placement of grapes, irregular payments, termination of planting subsidies, economic crisis, loans and fear of indebtedness, cheaper grapes available for wine production, fees, market saturation, black market, poor conditions in agriculture</i>	45.06
Existential and social reasons – lack of time due to employment <i>employment in company or other activities, lack of time or labour force, satisfaction of personal needs, lack of motivation, eroded personal relationships, uncertain future</i>	17.58
Demographic and family reasons – weakened vitality <i>aging, failing health, lack of interest of offspring to continue production, departure of younger generations, handing over the vineyard to the next generation</i>	14.29
Lands <i>lack of free land or plots too fragmented</i>	9.34
Administrative reasons – current and future restrictions of political administration <i>poor government and policies, regional lagging of Slavonia, administration, employee registration, EU restrictions, taxes, lack of order</i>	9.34
Natural reasons <i>natural disasters, uncertain yields, open-sky factory</i>	1.65
Other <i>wine-making as a hobby, everyone is in the „wine-making“ business, I just can't drink anymore</i>	2.75

Source: Telephone and field surveys, 15 March – 4 April 2013

Notes: Percentages represent the share of individual responses in the total number of examined responses; text in italics represents the responses of those surveyed.



Sl. 5. Promjena načina korištenja zemljišta na teritoriju naselja Stražeman pod utjecajem širenja vinograda u razdoblju 2000. – 2012. godine

Fig. 5. Changes in land use in the territory of the Stražeman settlement under the influence of vineyard expansion in the period from 2000 – 2012

Izvor: Popis katastarskih čestica, 2012.; terensko kartiranje, 25. 4. 2013.; Geoportal DGU, 9. 4. 2013.

Source: Register of cadastral plots, 2012; field mapping, 25 April 2013; Geoportal DGU, 9 April 2013.

barem djelomično bave vinskim turizmom. Kao prilog promjene načina korištenja zemljišta govori radikalni primjer na teritoriju naselja Stražeman, gdje je na manjem području u razdoblju 2000. – 2012. godine podignuto 6,5 ha vinograda (sl. 5). Prije sadnje vinograda očito je došlo do okrupnjavanja posjeda jer je više čestica na kojima su bile jednogodišnje kulture zamijenio jedan plantažni nasad vinove loze. Isto tako, usred vinograda je sagrađen objekt koji još nije u potpunosti uređen niti spreman za korištenje. Promjena agrarnog pejzaža još je važnija i očitija od promjene načina korištenja zemljišta, i to zbog specifične fizionomije vinograda. Naime, komercijalni plantažni vinogradi vrlo su izražena pojava u prostoru zbog svojih visokih redova, bez obzira na godišnje doba.

Druga posljedica širenja vinograda u Vinogorju Kutjevo je socijalno-ekonomske prirode, a odnosi se na porast broja gospodarstava koja se bave vinskim turizmom kao jednim od oblika ruralnog turizma.

in the number of farms that are at least partially involved in wine tourism. A radical example of the change in the method of the use of land parcels is found in the Stražeman settlement, where 6.5 ha of vineyard were raised in the period from 2000 to 2012 on a small area (Fig. 5). It is evident that there was a consolidation of land holdings prior to the planting of the vineyard, as multiple plots of land previously under annual crops were replaced by a single grapevine plantation. Likewise, a structure was erected in the midst of the vineyard that has yet to be fully completed and made ready for use. The change in the agrarian landscape is even more important and evident than the change in the way land parcels are used because of the specific physiognomy of vineyards. Commercial grapevine plantations are, namely, because of their high rows, a very pronounced feature in space, irrespective of the season.

Another outcome of the expansion of vineyards in the Kutjevo wine-growing hills is of a socio-economic nature and pertains to the growth in the number of farms that are active in wine tourism as one of the forms of rural tourism.

Broj takvih gospodarstava (11 od 16 ispitanih) bilježi najjači rast upravo u posljednjih nekoliko godina (2008. – 2012.), nakon što je uspostavljena infrastruktura za razvoj vinskog turizma: vinogradi i vinska cesta. Međutim, ove rezultate treba uzeti s rezervom jer većina priznaje da to nije ozbiljan vinski turizam. Oni najčešće nude razgledavanje podruma i kušanje vina (uz hranu), uglavnom bez mogućnosti noćenja. Ipak, dobra stvar takvoga vinskog turizma "u tragovima" jest mogućnost njegove lakše nadgradnje u budućnosti.

BUDUĆI RAZVOJ RURALNOG PROSTORA VINOGORJA KUTJEVO

Sa sigurnošću se može ustvrditi da neće biti novog širenja vinograda velikih razmjera jer bi samo 9 % vinogradara željelo posaditi novi vinograd. Većina ostalih vinogradara to ne planira zbog faktora koji su utjecali na dosadašnji završetak difuzije (tab. 3). Pritom će glavni ograničavajući čimbenik postati članstvo Hrvatske u Europskoj uniji, koja ne dopušta proširenje vinograda.

Širenje vinskog turizma ima bolje izgleda od sadnje vinograda zbog nešto većeg interesa ispitanika (20 %), ali još više zbog Europske unije koja ne brani, nego potiče tu djelatnost kao instrument integralnog razvoja ruralnih područja. Za buduću usklađeni lokalni razvoj Vinogorja Kutjevo itekako će biti relevantna funkcionalna povezanost između jezgre i periferije. Zato će se prijedlozi lokalnog razvoja temeljiti na spomenutoj regionalizaciji, a početak će s jezgrom, jer razvoj periferije ovisi o njoj.

Razvoj jezgre Vinogorja Kutjevo treba biti baziran na osnaživanju vinogradarstva, vinarstva i ruralnoga (vinskog) turizma. Osnaživanju navedenih djelatnosti treba pristupiti holistički. Pritom se kao opravdana mogućnost nameće stvaranje klastera po horizontalnoj (npr. vinogradari) i vertikalnoj integraciji (npr. međusektorska suradnja u vinskom turizmu) (Kesar i Ferjanić, 2010). Istraživanje potvrđuje perspektivu takvog razvoja jer svijest o potrebi udruživanja i umrežavanja već postoji kod malih proizvođača: *"Treba napraviti snažnije udruženje vinara da se omogući lakši proboj na tržište te stvori 'brand' kutjevačke graševine i vinara. Treba pratiti zahtjeve tržišta i ulagati u marketing, a za to treba puno više znanja, sposobnosti i rada. Mali proizvođači teško će opstati ako ostanu sami."*

Implementaciji ruralnog turizma nužno je pristupiti s velikom pažnjom jer on, osim što može biti katalizator regionalnog razvoja, može postati i veliki promašaj ako se izvede bez jasne vizije i strategije (Kesar i Ferjanić, 2010). Radi izbjegavanja pretjerane koncentracije gospodarstava s ujednačenom ponudom uputno je obratiti pozornost na njihovu usklađenu prostornu distribuciju i diverzifikaciju ukupne ponude. U protivnom, unificirana ponuda značila bi da turisti

The number of these farms (11 of 16 surveyed) has seen the greatest growth in the last few years (2008 to 2012), following the establishment of infrastructure for the development of wine tourism, in the form of vineyards and wine roads. These results need to be taken with some reserve; however, as the majority concede that this is not serious wine tourism. Most often they offer tours of the cellars and wine sampling (accompanied by food), largely with no option for overnight accommodation. The upside of wine tourism "in traces" as it currently stands is the fact that it can be easily upgraded in the future.

FUTURE DEVELOPMENT OF THE RURAL SPACE OF THE KUTJEVO WINE-GROWING HILLS

It can be said with certainty that there will be no new major expansions of vineyards as only 9% of grapevine growers expressed that they intend to raise new vineyards. The majority of grapevine growers do not plan any expansion as a result of the factors that influenced the present cessation of diffusion (Tab. 3). The chief limiting factor will now be Croatia's membership in the European Union, which does not permit the expansion of vineyards.

The expansion of wine tourism has better prospects than the planting of vineyards as a result of the somewhat greater interest of respondents (20%), but even more so on account of the European Union, which does not prevent, but rather encourages this activity as an instrument of the integral development of rural areas. The functional connectedness between the core and periphery will be very relevant to the future coordinated local development of the Kutjevo wine-growing hills. For this reason, proposals for local development will be based on the cited regionalisation, and will begin at the core, as the development of the periphery will depend on it.

The development of the core of the Kutjevo wine-growing hills should be based on strengthening viticulture, wine production and rural (wine) tourism. Strengthening these activities requires a holistic approach. In this regard, the creation of clusters along horizontal (e.g. grapevine growers) and vertical integration (e.g. inter-sector collaboration in wine tourism) emerges as a justified possibility (Kesar & Ferjanić, 2010). Research has confirmed the perspectives of this kind of development as there is already awareness of the need to create associations and for networking among small producers: *"A stronger vintners' association needs to be created to make it easier to break onto the market and to create a Kutjevo Graševina and vintner brand. The market demands need to be monitored and we need to invest in marketing, and that requires much more knowledge, competence and work. Small producers will be hard put to survive if they remain on their own."*

The implementation of rural tourism must be approached with great care because it can, besides being a catalyst of regional development, also be a great blunder if executed without clear vision and strategy (Kesar & Ferjanić, 2010). In order to avoid an excessive concentration of farms with a uniform supply, it is advisable that attention be paid to their coordinated

neće imati potrebu duljeg zadržavanja jer bi vidjeli cjelokupnu ponudu ukoliko posjete samo jedno vinarско gospodarstvo. Ekonomisti tvrde da je neophodno obrazovanje nositelja ruralnog turizma, kao i angažiranje stručnjaka za razvoj koji posjeduju stručna znanja o *“benchmarkingu”*, tj. istraživanju tržišta i primjeni koncepta najbolje razvojne prakse (Kesar i Ferjanić, 2010). O posljednjoj su mogućnosti kutjevački vinari već razmišljali, samo što se još nisu odvažili na realizaciju: *“O tome govorim već zadnje 3 – 4 godine: da trebamo zaposliti jednoga čovjeka koji bi bio profesionalac u Udruzi, koji bi to tako radio, organizirao nas, koji bi bio potpuno neutralna osoba, koji bi radio za interese Udruge. No ne možemo... ne znam”* (Čengić, 2007: 738).

Razvojne mogućnosti za periferiju Vinogorja Kutjevo su slabe, ali ipak postoje ako se dogodi snažniji razvoj jezgre. Demografska revitalizacija periferije trebala bi se temeljiti na privlačenju visokoobrazovanih kadrova koji žele mirnije okruženje, očuvanu prirodu, jeftinije stanovanje i zemljište te državne poticaje za područje posebne državne skrbi. Visoka stopa pošumljenosti tih područja mogla bi se iskoristiti za jači razvoj šumarstva i finalne drvne industrije. Treba razmotriti i mogućnost otvaranja novih institucija za starije i nemoćne ili sanatorija u prirodnom okruženju. Ipak, najveći potencijal postoji za razvoj ekološke poljoprivrede jer velike površine napuštenog zemljišta koje su nekontaminirane pesticidima i umjetnim gnojivima samo čekaju svoju afirmaciju. Takva ekološka gospodarstva u konačnici bi se mogla priključiti jezgri u stvaranju višedimenzionalnoga ruralno-turističkog proizvoda. Mora se priznati da će zacrtane mjere neizmjerljivo biti teže ostvariti nego izreći, ali treba im se nastojati što više približiti na opće dobro i korist svih stanovnika toga prostora.

ZAKLJUČAK

Provedeno istraživanje o širenju komercijalnih vinograda u Vinogorju Kutjevo u razdoblju 2000. – 2012. godine omogućilo je izvođenje sljedećih zaključnih tvrdnji.

1. Vinogorje Kutjevo 2000. – 2012. godine zabilježilo je proširenje vinograda za najmanje 700 ha, što je bio tipičan proces prostorne difuzije u kojemu je spontano sudjelovao velik broj vinogradara. Zbog toga intenzitet porasta nije bio jednolik: u početku je bio slab, zatim je tijekom diferenciranog širenja bio snažan da bi u stupnju zasićenja oslabio, a empirijski dokaz toga je grafički prikaz u obliku karakteristične *S-krivulje*.
2. Obilježje početnog stupnja širenja vinove loze bila je njena isplativost kao glavna komparativna prednost. Saznanja o tome proširila su se iz naselja Kutjevo putem osobnih kontakata i djelovanjem *Kutjeva d.d.* Glavni motivi za sadnju vinograda, osim visoke cijene

spatial distribution and diversification of the overall offer. A uniform offer implies that tourists have no need to stay for any length of time, as they would see the entire offer with a visit to a single winery. Economists claim that the principals of rural tourism require education, and that the services of experts who possess expert knowledge of benchmarking, i.e. market research and the application of the concept of best development practices, should be engaged in development (Kesar & Ferjanić, 2010). The vintners of Kutjevo have already been considering the latter possibility, but have not yet moved to implement it: *“We have been discussing this for the past three to four years: that we need to employ one person to be a professional in the association, who would do that, organise us, an entirely neutral person that would work for the interests of the association. But we cannot ... I do not know”* (Čengić, 2007: 738).

The development opportunities for the periphery of the Kutjevo wine-growing hills are poor though present if there is more robust development of the core. The demographic revitalisation of the periphery should be based on attracting highly educated people who wish for more peaceful surroundings, preserved nature, less expensive housing and land plots and state subsidies for areas of special state care. The high rate of forestation in these areas could be harnessed for the greater development of forestry and the final wood product industry. The possibility of opening new institutions for the elderly and infirm or a convalescent home in a natural setting should be considered. The greatest potential, however, is for the development of ecologically acceptable agriculture – large expanses of abandoned land, uncontaminated by pesticides and artificial fertilisers are awaiting their affirmation. These kinds of ecological farms could, in the final tally, be connected to the core in the creation of a multidimensional rural tourism product. It must be conceded that the planned measures will be immeasurably more difficult to achieve than to simply express, but an effort should be made to achieve them in the greatest possible measure to the general benefit of all inhabitants of the area.

CONCLUSIONS

The study examined the expansion of commercial vineyards in the Kutjevo wine-growing hills in the period from 2000 to 2012 and led to the following conclusions.

1. The Kutjevo wine-growing hills saw the expansion of vineyards in the period from 2000 to 2012 by at least 700 ha, which constitutes a typical process of spatial diffusion with the spontaneous participation of a great number of grapevine growers. The intensity of the growth was not uniform: initially it was weak, then robust in the differentiated expansion period, only to weaken again in the saturation phase – the empirical proof of this is the characteristic *S-curve* graph.
2. The characteristic of the initial phase of the expansion of grapevine was its profitability as the chief comparative advantage. This knowledge spread from the settlements of Kutjevo by way of personal contacts and the activi-

grožđa, državnih poticaja i osiguranja egzistencije bili su i sentimentalni razlozi, želja za nastavkom tradicije, posjedovanje pogodnog zemljišta te hobi-poljoprivreda.

3. Diferencirano širenje vinograda odvijalo se po specifičnim prostornim i vremenskim zakonitostima. Naselje Kutjevo je bilo primarno difuzijsko žarište Vinogorja Kutjevo, a udaljavanjem od njega prihvaćanje vinograda je slabjelo ovisno o složenim prirodno i društvenogeografskim uvjetima, odnosno razvojnim tipovima naselja.
4. Uzroci zasićenja ili prestanka podizanja novih vinograda bili su recipročni početku procesa. Negativni faktori bili su opća ekonomska kriza, prekid državnih poticaja za sadnju, porast cijene energenata i repromaterijala te tržišni monopolizam i sve što je iz njega proizašlo, kao npr. smanjenje cijene i količine otkupa grožđa. Na osobnoj je razini prestanak sadnje bio uvjetovan zadovoljenjem vlastitih potreba zbog nedostatka vremena ili ulaska u treću životnu dob.
5. Posljedica širenja novih vinograda je transformacija agrarnog ili kulturnog pejzaža u jezgri Vinogorja Kutjevo te povećanje broja gospodarstava koja se barem djelomično bave vinskim turizmom.
6. Prognozira se kako neće doći do širenja vinograda sličnih razmjera zbog administrativnih ograničenja Europske unije i tržišne nesigurnosti. Povećanje broja vinski-turističkih gospodarstava će se dogoditi, ali u znatno manjoj mjeri nego što je to bilo kod vinograda jer su početna ulaganja veća i rizičnija.
7. Među vinarima i vinogradarima postoji svijest o pozitivnim aspektima međusobnog udruživanja radi pojeftinjenja proizvodnje te zajedničkog nastupa na tržištu vina i vinskog turizma, samo što nedostaje volja i organizacijska spremnost za takvo što.
8. Kutjevo s pravom nosi epitet jednog od najrenomiranijih vinskih središta kontinentske Hrvatske zahvaljujući izvanrednim prirodnim predispozicijama i tradiciji vinogradarstva koja traje već osam stoljeća. Međutim, prirodne datosti i slavna prošlost kriju u sebi opasnost od prepuštanja životnoj filozofiji "*lako ćemo za budućnost*" kojoj se mora oduprijeti pod svaku cijenu, naročito u ovim tegobnim vremenima. Zato treba usmjeriti svu raspoloživu energiju prema neprestanom usavršavanju i samopoboljšanju, kako bi se postojeći golemi potencijal valorizirao i oplemenio na odgovarajući način. Budući da svijet ostaje na mladima, upravo oni trebaju preuzeti odgovornost te postati faktor razvoja Vinogorja Kutjevo, na opću korist i dobrobit svih stanovnika uže i šire regije.

ties of the *Kutjevo d.d.* company. The chief motivation for the planting of vineyards, besides the high price of grapes, state subsidies and securing earnings, were also sentimental reasons, a desire to continue traditions, the possession of suitable land plots and hobby agriculture.

3. The differentiated expansion of vineyards took place under specific spatial and chronological principles. The Kutjevo settlement was the primary focal point of diffusion in the Kutjevo wine-growing hills, and the adoption of vineyards declined with increasing distance from Kutjevo, depending on the complex natural and socio-geographic conditions, i.e. the development type of a particular settlement.
4. The causes of saturation or the cessation of raising new vineyards were reciprocal to the beginning of the process. The negative factors were the general economic crisis, the end of state subsidies for planting, a hike in the energy prices and production materials and market monopolism and all that ensued from it, such as, a drop in the price and quantities of grape buyoffs. At the personal level, the cessation of planting was based on the satisfaction of personal desires as a result of a lack of time or of passing into old age.
5. The outcome of the expansion of new vineyards was the transformation of the agrarian or cultural landscape in the core of the Kutjevo wine-growing hills, and an increase in the number of farms at least partially engaged in wine tourism.
6. It is forecast that there will be no future expansion of vineyards on a similar scale as a result of the administrative barriers imposed by the European Union and due to market uncertainty. There will be an increase in the number of wine tourism farms, but in a significantly lesser measure than was the case with vineyards, as the initial investment is greater and riskier.
7. There is an awareness among vintners and grapevine growers of the positive aspects of mutual association with the objective of reducing production costs and a collaborative presence on the wine and wine tourism markets, but there is a lack of will and organisational preparedness for something of this kind.
8. Kutjevo rightly bears the epithet of one of the most renowned wine hubs in continental Croatia thanks to its exceptional natural predisposition and eight centuries of tradition in viticulture. The natural predispositions and past fame, however, hide the danger of slipping into a "*things will sort themselves out*" philosophy of life, which must be resisted at all costs, especially in these troubling times. This is why all available resources should be directed towards constant development and self-improvement, in order to properly valorise the abundance of existing potential and enrich it appropriately. Since today's youth will inherit the future, it is they precisely who need to assume responsibility and become a factor in the development of the Kutjevo wine-growing hills, to the overall benefit of all inhabitants of the narrow and broader region.

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SAŽETAK

Rad razmatra širenje komercijalnih vinograda u Vinogorju Kutjevo 2000. – 2012. godine potaknuto mjerama nacionalne agrarne politike, koje je reprezentativan primjer tendencija u vinogorjima diljem Hrvatske. Prostor istraživanja je Vinogorje Kutjevo u granicama definiranim pravilnikom o vinogradarskim područjima, a obuhvaća četiri administrativno-teritorijalne jedinice: općine Velika, Kaptol, Čaglin i upravni grad Kutjevo.

Teorijski okvir rada čini model prostorne ili geografske difuzije, koji je do sada bio nedovoljno zastupljen u hrvatskoj geografskoj bibliografiji. Predložena je terminologija temeljena na stranoj literaturi i vlastitim promišljanjima. Umjesto dosadašnjeg termina *inovacija* ili *inovacijski proces* bilo bi bolje reći *prostorna* ili *geografska difuzija*. Nadalje, difuzija se odvija u realnom geografskom prostoru, a ne plošno ili linijski. Elementi prostorne ili geografske difuzije su prostorno-vremenski okvir, prenositelji (subjekti), pojava (objekt) koja se širi te faktori koji utječu na sam proces. Difuzija obično ima 3–5 razvojnih stupnjeva, poprimajući karakterističnu *S-krivulju* širenja tijekom vremena. U *početnom razvojnom stupnju* mali broj nositelja sudjeluje u procesu, sve dok pojava ne pokaže svoje prednosti. Tada nastupa drugi stupanj najjačega *diferenciranog širenja* u obliku *difuzijskih valova* uvjetovanih *oponašanjem, susjedstvom, hijerarhijom, barijerama* te *prirodnim i društvenim faktorima*. Kad se pojava svojim rezultatima potvrdi ili izgubi prednost, dolazi do usporavanja procesa ili *razvojnog stupnja zasićenja*.

Metode korištene u radu su telefonska anketa vinogradara u općinama Kaptol, Čaglin i Kutjevo te istraživački razgovor i terensko kartiranje u općini Velika koja predstavlja *studiju slučaja*. Istraživanu populaciju činili su privatni komercijalni vinogradari iz Vinogorja Kutjevo koji su posadili vinograd 2000. – 2012. godine. Na tom je području u *Upisniku poljoprivrednih gospodarstava* bilo registrirano 488 vinogradara, međutim nisu svi zadovoljavali postavljene kriterije. Ispitanici za telefonsku anketu i intervju odabrani su prigodnim uzorkom. Telefonskom je anketom ispitano 100, a intervjuom 30 vinogradara što čini najmanje 26,6 % od 488, a sigurno i znatno veći udio privatnih komercijalnih vinogradara u Vinogorju Kutjevo. Kod istraživačkog

8. Putanec, V., 1995: *Francusko-hrvatski rječnik*, Školska knjiga, Zagreb
9. Statistics on land use, State Geodetic Administration (DGU), Požega Regional Cadastre Office, Požega, 2012
10. Kutjevo wine-growing hills, Slavonian Routes – the Wine Roads of Požega-Slavonia County, <http://www.slavonski-puti.hr/vinogorje/kutjevo> (27 March 2013)

SUMMARY

This paper considers the expansion, encouraged by national agrarian policy measures, of commercial vineyards in the Kutjevo wine-growing hills in the period from 2000 to 2012, as a showcase example of trends in wine regions across Croatia. The study area is the Kutjevo wine-growing hills in its borders as defined by the Ordinance on wine-growing areas, covering four administrative/territorial units: the municipalities of Velika, Kaptol, Čaglin and the town of Kutjevo.

The study's theoretical framework is the model of spatial or geographic diffusion, which has to date been insufficiently represented in the Croatian geographic literature. The proposed terminology is based on foreign literature and my own consideration of the subject. In place of the current terms *innovation* or *innovation process*, it would be better to refer to *spatial* or *geographic diffusion*. Furthermore, diffusion takes place in real geographic space, not in a flat or linear manner. The elements of spatial or geographic diffusion are: the spatial and chronological frame, transmitters (subjects), the phenomenon (object) that is spread and the factors that impact the process itself. Diffusion normally has three to five developmental phases, acquiring the characteristic *S-curve* of expansion over time. In the *initial phase of development* there are a small number of principals participating in the process, until the phenomenon demonstrates its advantages. This is followed by the second phase of the strongest *differentiated expansion* in the form of *diffusion waves* contingent on *imitation, neighbourhood, hierarchy, barriers, natural and societal factors*. When a phenomenon confirms itself through results or losses its advantage there is a slowing of the process or the *saturation phase of development*.

Methods used in the study were telephone surveys of grapevine growers conducted in the municipalities of Kaptol, Čaglin and Kutjevo and investigative interviews and field mapping in the municipality of Velika which constitutes a *case study*. The studied population consisted of private commercial grapevine growers in the Kutjevo wine-growing hills that planted vineyards from 2000 to 2012. In the area, 488 grapevine growers are registered in the *Farm Register*, however not all met the set criteria. The respondents for the telephone survey and interviews were selected as a convenient sample. The telephone survey included 100 grapevine growers, and the interviews covered 30, which accounted for at least 26.6% (of 488), and a certainly significantly greater

pristupa korištena je tipologija ruralnih područja, a ostale metode uključuju analizu katastarske dokumentacije i statističkih izvora.

Rezultati pokazuju da je površina vinograda u Vinogorju Kutjevo 2000. – 2012. porasla za 700 ha. Na Vinogorje Kutjevo otpada više od 90 % povećanja površine vinograda u cijeloj Požeško-slavonskoj županiji. Intenzitet sadnje vinograda tijekom promatranog vremena nije bio jednolik: u početku je bio slab, u sredini snažan i na kraju slab. Kumulativno kretanje površine novih vinograda imalo je oblik *S-krivulje*, što je empirijski dokaz prostorne difuzije. Vinogradari kao nositelji procesa imaju nepovoljan dobni sastav (medijan 51 godina), ali je njihova obrazovna struktura iznadprosječna, pri čemu 21,5 % ispitanika posjeduje višu ili visoku stručnu spremu. Početkom razdoblja prosječna veličina nasada bila je 1,1 ha, da bi na kraju dosegla 3,3 ha po vinogradaru.

Glavni izvori informacija o opravdanosti sadnje u početnom stupnju procesa bili su osobni kontakti i *Kutjevo d.d.* Najzastupljeniji motivi za sadnju komercijalnih vinograda bili su ekonomske i egzistencijalno-socijalne naravi, kao što ih ime opisuje. Najveća komparativna prednost vinove loze u početnom razvojnom stupnju bila je isplativost. Ostali motivi sadnje bili su sentimentalni razlozi, zemljište i hobi-poljoprivreda.

Tijekom drugoga razvojnog stupnja došlo je do najjačega *diferenciranog širenja* vinograda koje se odvijalo po specifičnim prostornim i vremenskim zakonitostima. Naselje Kutjevo je bilo primarno difuzijsko žarište Vinogorja Kutjevo, a udaljavanjem od njega prihvaćanje vinograda je slabjelo ovisno o složenim prirodno i društvenogeografskim uvjetima, odnosno razvojnim tipovima naselja. Naselja u kojima je došlo do širenja vinograda prema tipologiji u potpunosti pripadaju kategorijama *gradova*, *dinamičnih*, *strukturno jačih naselja* i većim dijelom *tržišno orijentiranih poljoprivrednih naselja*, a imaju povoljne predispozicije za vinogradarstvo. Na njima su se tijekom difuzije očitovali *efekti susjedstva* i *hijerarhije*. Naselja u kojima nije došlo do prihvaćanja vinove loze u potpunosti pripadaju tipovima *ruralne periferije*, *ostalih (malih, slabo infrastrukturno opremljenih naselja)*, *naselja bez stanovnika*, *ekonomski diverzificiranih naselja* i dijelom *tržišno orijentiranih poljoprivrednih naselja*. Ondje su naglašeni nepovoljni prirodni i društveni čimbenici za razvoj vinogradarstva koji su djelovali kao *barijere* u prostornoj difuziji. Na temelju analize proizašla je sinteza, tj. regionalizacija: jezgri Vinogorja Kutjevo pripadaju naselja u kojima je došlo do širenja komercijalnih vinograda, a periferiji pripadaju naselja u kojima nije došlo do toga.

U krajnjem razvojnom stupnju difuzije došlo je do *zasićenja* zbog čimbenika koji su bili slični početnim motivirajućim čimbenicima, samo suprotnoga predznaka. Zbog ekspanzivnog porasta vinograda došlo je do hiperprodukcije i povećanja ponude koji su u uvjetima tržišnog monopolizma doveli do nesigurnog otkupa i višestrukog pada ci-

share of private commercial grapevine growers in the Kutjevo wine-growing hills. The rural areas typology was applied in the research approach, while other methods include the analysis of cadastral documentation and statistical sources.

The results show that the surface area of vineyards in the Kutjevo wine-growing hills increased by 700 ha in the period from 2000 – 2012. Over 90% of the increase in the surface area of vineyards in all of Požega-Slavonia County is accounted for in the Kutjevo wine-growing hills. The intensity of planting new vineyards in the Kutjevo wine-growing hills over the period under observation was not uniform: initially, it was very weak, robust in the middle stage, and weak again at the final stage. The cumulative trend of the surface area of new vineyards assumed the form of an *S-curve*, which is empirical proof of spatial diffusion. Grapevine growers as the principals in the process have an unfavourable age composition (a median age of 51) but their educational composition is above average, with 21.5% of respondents having a university degree. In the initial phase, the average size of a plantation was 1.1 ha, which was increased to 3.3 ha per vineyard at the end of the process.

The chief sources of information on the justifiability of planting in the initial phase of the process were personal contacts and the *Kutjevo d.d.* company. The most represented motivations for the planting of commercial vineyards were of an economic and existential-societal nature. The chief comparative advantage of the grapevine crop in the initial phase of development was profitability. Other motives for planting include sentimental reasons, land plots and hobby agriculture.

The second phase of development saw the most robust *differentiated expansion* of vineyards took place under specific spatial and chronological principles. The Kutjevo settlement was the primary focal point of diffusion in the Kutjevo wine-growing hills, and the adoption of vineyards declined with increasing distance from Kutjevo, depending on the complex natural and socio-geographic conditions, i.e. the development type of a particular settlement.

In terms of typology, settlements with an expansion of vineyards entirely fall under the categories of *towns*; *dynamic*, *structurally more robust settlements*; and for the most part *market-oriented farming settlements*, and possess favourable predispositions for viticulture. The *neighbourhood* and *hierarchy effects* were manifested in them during the diffusion. Settlements that did not adopt the cultivation of grapevine fall entirely under the *rural periphery*, *other (small, settlements with poor infrastructural development)*, *uninhabited settlements*, *economically diversified settlements* and partly to the *market-oriented farming settlements*. Natural and societal factors unfavourable to the development of viticulture are emphasised here, acting as *barriers* to spatial diffusion. A synthesis arises from the analysis, i.e. a regionalisation: the core of the Kutjevo wine-growing hills includes settlements in which there has been an expansion of commercial vineyards, while the periphery includes settlements in which this has not been the case.

The final development phase of diffusion saw a *saturation* caused by factors similar to the initial motivating fac-

jene grožđa. Na to su se nadovezali opća ekonomska kriza, prestanak poticaja za sadnju te poskupljenje proizvodnje (repromaterijal i energenti) koji su uzrokovali neisplativost vinogradarske proizvodnje. Među ostalim razlozima bili su važni nedostatak vremena i ulazak vinogradara u treću životnu dob.

Posljedice širenja novih vinograda u Vinogorju Kutjevo bile su mnogobrojne, ali najočiglednija je transformacija agrarnog pejzaža zbog promjene načina korištenja zemljišta te povećanje broja gospodarstava koja se barem djelomično bave vinskim turizmom.

Procjenjuje se kako u budućnosti neće doći do širenja vinograda sličnih razmjera zbog faktora koji su doveli do zasićenja te zbog ograničenja Europske unije. Širenje vinskog turizma ima bolje izgleda od sadnje vinograda zbog nešto većeg interesa ispitanika, ali još više zbog poticajnih mjera Europske unije namijenjenih integralnom ruralnom razvoju. Za buduću usklađenu lokalni razvoj Vinogorja Kutjevo bit će važna funkcionalna povezanost između jezgre i periferije. Razvoj jezgre Vinogorja Kutjevo treba biti baziran na osnaživanju vinogradarstva, vinarstva i ruralnoga (vinskog) turizma. Osnaživanju navedenih djelatnosti treba pristupiti holistički. Pritom se kao opravdana mogućnost nameće stvaranje klastera po horizontalnoj (npr. vinogradari) i vertikalnoj integraciji (npr. međusektorska suradnja u vinskom turizmu). Istraživanje potvrđuje perspektivu takvog razvoja jer svijest o potrebi udruživanja i umrežavanja već postoji kod malih proizvođača. Radi izbjegavanja pretjerane koncentracije vinsko-turističkih gospodarstava s ujednačenom ponudom uputno je obratiti pozornost na njihovu usklađenu prostornu distribuciju i diverzifikaciju ukupne ponude. Razvojne mogućnosti za periferiju Vinogorja Kutjevo su slabe, ali ipak postoje ako se dogodi snažniji razvoj jezgre.

tors, only with an opposite denomination. The expansive growth of vineyards led to overproduction and increase in supply. In conditions of market monopolism this led to uncertainty in grape buyoffs and a manifold drop in the price of grapes. This was followed by the general economic crisis, the cessation of subsidies for planting and increases in production costs (production material and energy) that in turn led to the unprofitability of viticulture production. Other key reasons include a lack of time and the passing of grapevine growers into old age.

The outcomes of the expansion of new vineyards in the Kutjevo wine-growing hills were numerous, but the most evident is the transformation of the agrarian landscape as a result of the change in the land use methods and the increase in the number of farms that are at least partially involved in wine tourism.

It is forecast that there will be no future expansion of vineyards on a similar scale as a result of factors that led to saturation and the administrative barriers imposed by the European Union. The expansion of wine tourism has better prospects than the planting of vineyards as a result of the somewhat greater interest of respondents, but even more so on account of the incentives offered by the European Union targeted at the integral development of rural areas. The functional connectedness between the core and periphery will be very relevant to the future coordinated local development of the Kutjevo wine-growing hills. The development of the core of the Kutjevo wine-growing hills should be based on strengthening viticulture, wine production and rural (wine) tourism. Strengthening these activities requires a holistic approach. In this regard the creation of clusters along horizontal (e.g. grapevine growers) and vertical integration (e.g. intersectoral collaboration in wine tourism) emerges as a justified possibility. Research confirms the perspectives of this kind of development as there is already awareness of the need to create associations and for networking among small producers. In order to avoid an excessive concentration of wine tourism farms with a uniform offer, it is advisable that attention be paid to their coordinated spatial distribution and diversification of the overall offer. The development opportunities for the periphery of the Kutjevo wine-growing hills are poor but do exist if there is a more robust development of the core.