

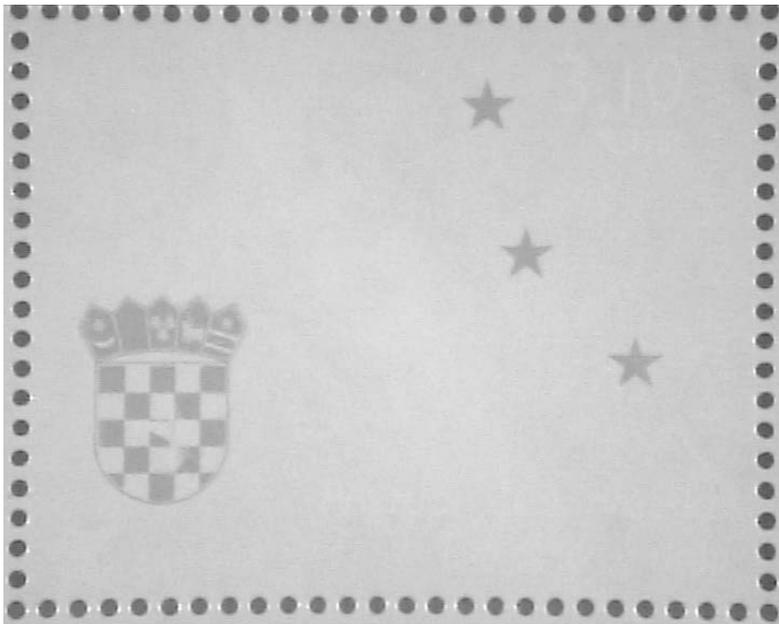
# Infra Postage stamp

[www.infraredesign.net](http://www.infraredesign.net) [www.ziljak.hr](http://www.ziljak.hr) [vilko@ziljak.hr](mailto:vilko@ziljak.hr) tel: +385 91 1812 946

<http://www.posta.hr/default.aspx?id=3622&fyr=2013&m=53173>



Postage Stamp  
Visual spectrum



Postage Stamp  
Infrared spectrum

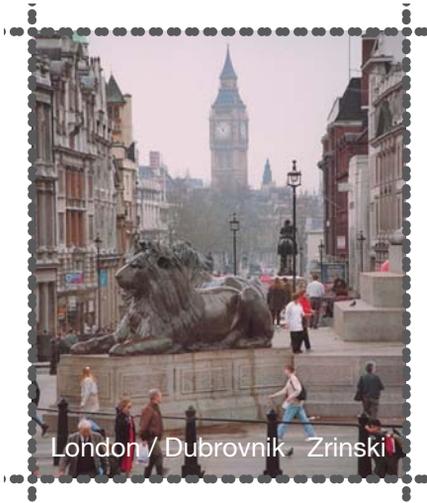
INFRAREDESIGN® technology was applied to postage stamps. Two images were merged in a small space. For two spectral regions. The solution for the stamp created for the accession of Croatia to the EU is being demonstrated. Two different contents on a unique assignment. In the first phase, the graphics carry mutually independent planned data. By combining these two graphics with the IRD technology, we are getting a new, dependent relationship. The resulting image, in addition to increased communication value, provides the stamp with the superior protection against counterfeit. Today there is no method by which a stamp designed and realized in such a way could be counterfeited. Distinctiveness and uniqueness of such an edition of a postage stamp is evident in the duality of visual and communication data in the visible and infrared part of the solar spectrum. Such a stamp communicates multiple information on its small area that do not disrupt the visual harmony of motives. The message is being distributed both thematically and visually. The discovery of the IRD and its application in printing and designing stamps contributes to the exceptional possibilities in the universal communication between postage stamps and the overall population. When it comes to design and marketing, a whole new wider creative space is being created. For merging two images the mathematical solution of Z separation uses twin colors system that have the same visual characteristics but different properties of light absorption in the infrared spectrum.



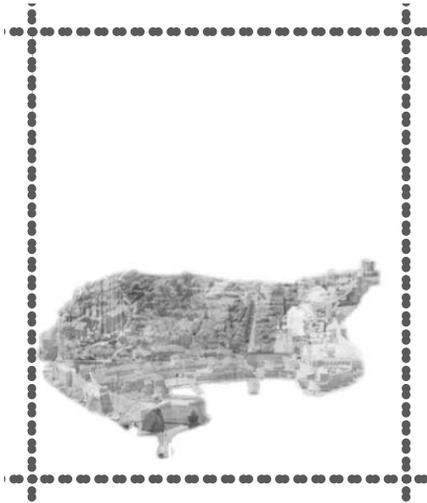
Postage Stamp - Visual spectrum



Postage Stamp - Infrared spectrum



Postage Stamp - Visual spectrum



Postage Stamp - Infrared spectrum



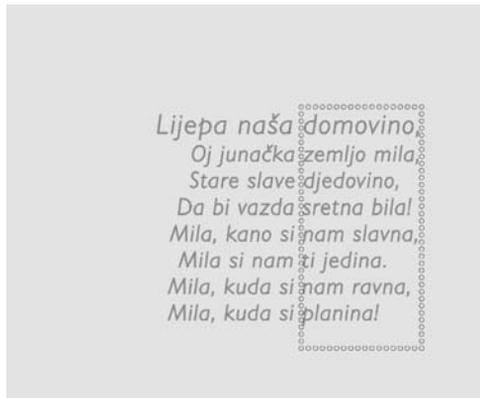
Visual spectrum



570nm



715nm



1000nm

*On the occasion of the accession of the Republic of Croatia to the European Union, Croatian Post has issued a postage stamp and a commemorative souvenir sheet, unique in the world per processing and printing techniques.*

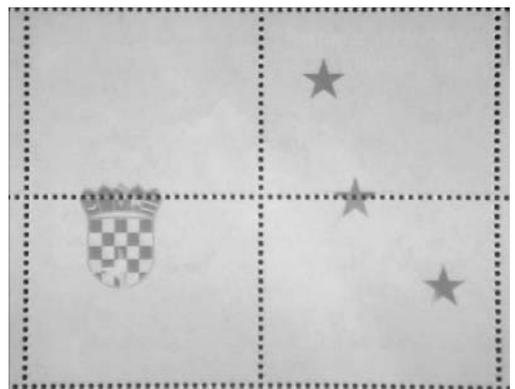
In this postage stamp issue Croatian Post has for the first time applied the recognised scientific invention of the INFRAREDESIGN (IRD) which implies two mutually dependent images on one surface. One image is visible by naked eye in real conditions while the other is visible in close infrared area i.e. through infrared glasses or infrared camera. In the first stage the graphics carry mutually independent, planned data. The resulting image apart from enhanced communicational value gives to the stamp top counterfeiting protection. Today, there is no such method which could be used to counterfeit the stamp designed in this way. The particularity and uniqueness of the issue is evident in the duality of visual and communicational data in visible and infrared part of the visual spectrum. In this way the postage stamp on its small surface communicates more information which does not disturb the visual harmony of motifs. The message is partitioned thematically and visually.

The invention of IRD and its application on printing and designing of postage stamps contributes to exceptional possibilities of visual communication of postage stamps with the whole population and opens a new and vast creative space in the field of design and marketing. IRD is the newest world technology applied on the postage stamps "Accession of the Republic of Croatia to the European Union."

Stamps were designed by PhD Jana Žiljak Vujić, B. Des., one of the authors of the InfraRed patent Infracrveni tisak s procesnim bojama P20080466A2, 1844674407370955/6/5 HR 17,2010,3,575 - 681, EU; European Patent Office. (Infrared printing with process colours ... )



Postage Stamp - Visual spectrum



Postage Stamp - Infrared spectrum