
**Invisible Natures: On Italo Calvino's *Invisible Cities***

Marco Polo describes a bridge, stone by stone.
"But which is the stone that supports the bridge?"
Kublai Khan asks.

"The bridge is not supported by one stone or another," Marco answers,
"but by the line of the arch that they form."
Kublai Khan remains silent, reflecting.

Then he adds:
"Why do you speak to me of the stones?
It is only the arch that matters to me."
Polo answers:
"Without stones there is no arch."

Italo Calvino, *Invisible Cities*

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The starting-point is a short and disturbing sentence: "Our society lives after the end of nature". These are the words of the British economics professor and thinker Anthony Giddens, in his recent book *Runaway World*. What exactly is the meaning of this uncomfortable affirmation? The "end of nature" does not necessarily mean the end of the physical world. The point is more that until very recently nature was still not affected by human intervention. We still do not know exactly what is natural and what is the result of human action. Global warming, flooding and drought in different regions of the planet, genetically modified foodstuffs: are these things natural or artificial phenomena? The "end of nature" could also lead us to think of cities concreting over the landscape, rainforests being felled or governments that despise the natural world. However, it is not my intention to go over this well-trodden ground once again: my concern in this paper is not the end of nature, but, rather, the growth of forms of invisible nature, which take possession of time and space like huge spider's webs.

Something is in process of exceeding nature, enveloping it in invisible fashion: that something consists of the networks which are the collective representation of the relations between humans and machines, between the human and the non-human. Rather than describe these relations in scientific or technical language, I believe that we may turn to literature as a means of deciphering at least some parts of this technological and social imbroglio. I shall use as my guide in this essay the sequence of short narratives which make up Italo Calvino's work of fiction *Invisible Cities* (1972). In these narratives, Marco Polo, the celebrated Venetian oriental traveller, offers the emperor Kublai Khan an account of his presumed visits to a series of imaginary cities, each of which bears a woman's name. In their lightness, swiftness and multiplicity, Calvino's narratives work on the reader's imagination to generate means of capturing the similar "invisible natures" of today's world: "A Ersilia, per stabilire i rapporti che regono la vita della città, gli abitanti tendono dei fili tra gli spigoli delle case, bianchi o neri o

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grigio o bianco-e-neri a seconda se segnano relazioni di parentela, scambio, autorità, rappresentanza" ["In Ersilia, to establish the relationships that sustain the city's life, the inhabitants stretch strings from the corners of the houses, white or black or gray or black-and-white according to whether they mark a relationship of blood, of trade, authority, agency"]³. This tangle of stretched strings offers us a first glimpse of those "invisible natures". The network of relationships that is the Internet is a metaphor for connectivity in time and space.

"Se volete credermi, bene. Ora dirò come è fatta Ottavia, città-ragnatela. C'è un precipizio in mezzo a due montagne scoscese; la città è sul vuoto, legata alle due creste con funi a catene e passerelle … Sospesa sull'abisso, la vita degli abitanti d'Ottavia è meno incerta che in altre città. Sanno che più di tanto la rete non regge." ["If you choose to believe me, good. Now I will tell how Octavia, the spider-web city, is made. There is a precipice between two steep mountains: the city is over the void, bound to the two crests with ropes and chains and catwalks … Suspended over the abyss, the life of Octavia's inhabitants is less uncertain than in other cities. They know the net will last only so long."]⁴. These words of Calvino's Polo suggest the fashion in which we ourselves are becoming ever more connected to the "invisible natures", even if we fail to notice what is happening. The spider-web which sustains our modern life is created through cellphones, computers, faxes, television and communication networks. And yet, at the same time, we remain unaware of the limits and the risks. Instant electronic communications, the Internet and computers are not just means of transmitting news and information faster. They are much more than that: they are phenomena which are radically altering the tissue of society. When the image of the US President is more familiar to us than our neighbour's face, it seems that the daily life of everyone, rich or poor, is being altered for good by technology - by the invisible nature of the communication and information networks. When we realise that an economic disturbance in South Korea, Thailand or Indonesia can almost instantaneously impact on prices and daily life in Brazil, we can be sure that we need to reach a clearer understanding of these networks and the invisible natures which they create.

"Quale linea separa il dentro dal fuori, il rombo delle ruote dall'ululo dei lupi?" ["What line separates the inside from the outside, the rumble of wheels from the howl of wolves?"]⁵. Such is the question raised in Calvino's text by the city of Zoe, the place of indivisible existence. The reader has the eerie sensation that the thin line that divides the real from the artificial is in process of collapse. In fact, we are experiencing the real and artificial at one and the same time. The signs of the real that we once recognised - contours, irregularities, texture, odour - are, perhaps, becoming things of the past. Gradually they are being replaced by information, in the form of images and sounds. In today's world, television, videos, the radio, digital cinema and the web of computers and cellphones are pushing out nature and taking over its space. Modern urban life is becoming intoxicated with artificial images, and it would come as no surprise to find today's children replacing the fantasies of the imagination and nature with Nintendo-type characters and scenes.

Artificial nature is invisible, yet it weighs on us. It weighs us down through its universal excess: the sources of images and information produce overdoses of news and fictions originating from all corners of the planet and on all possible subjects. The vastness of the empire of Kublai Khan should make us reflect on the culture of excess of the contemporary world: "Il Gran Kan contempla un impero ricoperto di città che pesano sulla terra e sugli uomini, stipato di ricchezze e d'ingorghi, stracarico d'ornamenti e d'incombenze, complicato di meccanismi e di gerarchie, gonfio, teso, greve. 'È il suo stesso peso che sta schiacciando l'impero', pensa Kublai" ["The Great Khan contemplates an empire covered with cities that weigh upon the earth and upon mankind, cramned with wealth and traffic, overladen with ornaments and offices, complicated

with mechanisms and, hierarchies, swollen, tense and ponderous. 'The empire is being crushed by its own weight', Kublai thinks’]

"Are we too not being crushed by a universal excess, under the information overload of the Internet?"

"Del carattere degli abitanti di Andria meritano di essere ricordate due virtù: la sicurezza in se stessi e la prudenza. Convinti che ogni innovazione nella città influisca sul destino del cielo, prima di ogni decisione calcolano i rischi ed i vantaggi per loro e per l'insieme della città e dei mondi". ["As for the character of Andria's inhabitants, two virtues are worth mentioning: self-confidence and prudence. Convinced that every innovation in the city influences the sky's pattern, before taking any decision they calculate the risks and advantages for themselves and for the city and for all worlds"] In Andria, life flows with the calm of the movement of the heavenly bodies, and acquires the necessity of phenomena not subject to the human will. By contrast with Andria, the collective nature of the modern communication and computer networks creates environments which are unstable and liable to accelerated change. Share-price anxiety can sweep across the whole planet. The networks create the possibility of immediate action, with capital movements following headlong on the heels of information, generating panic or euphoria. The invisible natures foster instability and generate innovation, thanks to the swiftness, interactivity and all-encompassing scope of the networks.

Information, knowledge and news are diffused in a near-instantaneous and unpredictable fashion, via the "electronic word-of-mouth" which characterises the networks of which the invisible natures are made. In the traditional media - television, radio, newspapers - information essentially flows one way only. In the new networks, information flows with the tide, and everyone can act on it, receive it and pass it on, like the stevedores and gondoliers recalled by Calvino's Marco Polo: "'I speak and speak,' Marco says, 'but the listener retains only the words he is expecting. The description of the world to which you lend a benevolent ear is one thing; the description that will go the rounds of stevedores and gondoliers on the street outside my house the day of my return is another; and yet another, that which I might dictate late in life, if I were taken prisoner by Genoese pirates and put in irons in the same cell with a writer of adventure stories. It is not the voice that commands the story: it is the ear.'"].

The networks rapidly disseminate knowledge, information, legends and rumours. Italo Calvino writes: "Nella vita degli imperatori c'è un momento, che segue all'orgoglio per l'ampiezza sterminata dei territori che abbiamo conquistato, alla malinconia e al sollievo di sapere che presto rinunceremo a conoscerli e a comprenderli; un senso come di vuoto che ci prende una sera con l'odore degli elefanti dopo la pioggia e della cenere di sandalo che si raffredda nei bracieri…" ["In the lives of emperors there is a moment which follows pride in the boundless extension of the territories we have conquered, and the melancholy and relief of knowing we shall soon give up any thought of knowing and understanding them. There is a sense of emptiness that comes over us at evening, with the odor of the elephants after the rain and the sandalwood ashes growing cold in the braziers …"].

Is this not an image of a legitimate desire on the part of today's human beings to disconnect from the invisible natures that surround them - the desire to be unreachable by television, telephone, fax or email - the desire to reconnect with real nature, to breathe in its odours, contemplate its forms and hear its sounds and its silence? Are we not confronted here with an image of the perplexity of present-day
humanity in the face of the uncertainty brought about by the overfast advance of technology and science?

Translated from the Portuguese by Christopher Rollason

1 Giddens' text (Runaway World, second lecture) may be found at:
http://news.bbc.co.uk/hi/english/static/events/reith_99/week2/week2.htm
3 Calvino, op. cit. Italian edn. 82, English edn. 76.
4 81, 75.
5 40, 34.
6 79, 73.
7 157, 151.
8 143, 135.
9 13, 5.