Chapter 6
Flow

Abstract Money laundering, drugs, asylum-seeking, arms trades, people smuggling, slave trades and let us not forget the movement of terrorist materials around the world are all common features of the maritime sector and facilitated by the heady mix of globalisation and shipping. Central to the concept of change and flux in policies and the governance of the maritime sector is the concept of flow, representing the movement that needs to be repeated within maritime policy if it is to become dynamic and to reflect the constantly changing world of the shipowner, port manager, maritime lawyer and banker, and other stakeholders within the industry. It is a concept that is also needed to accommodate maritime policies within a governance framework in which they have to operate outside the maritime sector and within the wider spread of stakeholders that exists but which are frequently overlooked. In this chapter, we shall consider the work of Manuel Castells and the *Space of Flows,* but although highly significant, this is not the only aspect of flow that needs to be debated from a governance perspective and within a maritime context. Other issues include the relationship of flow to process and how although closely related, they are not the same thing. Flows, hierarchies and fluids will also be central to the discussion along with the relationship of flow to our earlier consideration of space, territories and boundaries. And after all this, we draw it together looking at the development of flows in governance and policy-making and the issue of speed.

> While the actual location of high-level centers in each period is critical for the distribution of wealth and power in the world, for the perspective of the spatial logic of the new system what matters is the versatility of its networks. The global city is not a place, but a process. A process by which centers of production and consumption of advanced services, and their ancillary local societies, are connected in a global network, whilst simultaneously downplaying the linkages with their hinterlands, on the basis of information flows. Castells (1996: 417) quoted in Ballve (2011).

> Standing by a river we see the perpetual flowing of the water. But to grasp it conceptually, and to communicate it to others, we do not think and say 'Look at the perpetual flowing of the water', we say, 'Look at how fast the river is flowing'. We say, 'the wind is blowing', as if the wind were actually a thing at rest which at a given point in time, begins to move and blow. We speak as if the wind were separate from its blowing, as if a wind could exist which did not blow. Elias (1978: 112, quoted in Moore 2008: 219).

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> The flows from the wild zones of people, risks, substances, images, Kalashnikovs… increasingly slip under, over and through the safe gates, suddenly and chaotically eliminating the indivisibilities that had kept the zones apart. Through money laundering, the drug trade, urban crime, asylum-seeking, arms trading, people smuggling, slave trading and urban terrorism, the spaces of the wild and the safe are chaotically juxtaposed, time and space is being curved into new complex configurations. Urry (2002: 63–64).

Urry's comments on flows and security ring frighteningly true in the context of maritime governance—money laundering, drugs, asylum-seeking, arms trades, people smuggling, slave trades and let us not forget the movement of terrorist materials around the world—are all common features of the maritime sector and facilitated by the heady mix of globalisation and shipping. Central to the concept of change and flux in policies and the governance of the maritime sector is the concept of flow, representing the movement that needs to be repeated within maritime policy if it is to become dynamic and to reflect the constantly changing world of the shipowner, port manager, maritime lawyer and banker, and other stakeholders within the industry. It is a concept that is also needed to facilitate maritime policies within a governance framework which has to operate outside the maritime sector, within the wider spread of stakeholders that exists but which is frequently overlooked.

In this chapter, we shall consider the work of Manuel Castells and the *Space of Flows,* but although highly significant, this is not the only aspect of flow considered from a governance perspective and within a maritime context. Other issues include the relationship of flow to process and how although closely related, they are not the same thing. Flows, hierarchies and fluids will also be central to the discussion along with the relationship of flow to our earlier consideration of space, territories and boundaries.

And after all this, we draw it together looking at the development of flows in governance and policy-making and the issue of speed. This is taken up in some detail in the next chapter where the central features of process and governance are considered. At that point, we can begin to consider what needs to be done next to refresh policy-making and governance in the maritime sector to accommodate the movement, change and dynamism that is so significant and yet sadly lacking and which makes the current situation untenable. But first to a clarification of flow before the more specific issues that need to be considered can be introduced.

Flow: Definition, Significance and Context

> We live in mobile societies. Although most people continue to think and talk about social life as though it can be easily explained using well-defined, clearly established parameters, domains or spheres – for example the nation-state, family, culture, work, love, publicity, privacy and citizenship – the reality is that our lives are constructed around flows of information, capital, waste, technology, people, images sounds etc. Castells (1996) quoted in Hier and Greenberg (2007).

> Ancient atomism is inseparable from flows, and flux is reality itself, or consistency. Deleuze and Guattari (1988: 361).

Sidaway (1995: 487) points out the rise in interest in motion and flow that has occurred, describing this as unprecedented using the movement of information and consequently power by senior Saudi families as an example of its diverse and significant impact. Stalder (summarised in 2006: 152, and detailed from 154 on) could not be clearer in his support. He sees nearly all 'strategic dominant activities—generating most of the financial wealth and administering the most powerful institutions' operating as flows, including not only those associated with the Internet but also what he terms 'private and closed networks'. Meanwhile, Shields (1997: 1) stresses the importance of transfers, movement, speed but particularly flows as cultural images and economic factors. He suggests that flow is a new paradigm.

> The notion of flow, most widely known from the work of Deleuze and Irigaray, (see Lorraine 1999), occurs repeatedly in social theory. Associated with a paradigm shift within cultural studies and sociology from the analysis of objects to processes, it is also linked by geographers to the notion of nomadism and the breakdown of the fixity of boundaries and barriers. More poignantly, it is the lived experience of the global mass migrations and movements of refugees. In effect, the dominant metaphors for discussions of sociality have swung from models of affinity to those of viscosity. Shields (1997).

Shields also notes a range of research focussing upon the significance of flows that was active in the late twentieth century. This includes de Courville-Nicol (1997), Dykrton (1997), O'Connor (1997), Ironstone-Catterall (1997) and McCarthy (1997) reflecting a wide spectrum of opinion on the need to place flow at the centre of human perspective.

Allmendinger (2001: 34) looks at the relationship between processes and flows and consequently helps to draw closer our discussion in the last two chapters. He sees flows with 'no locus or closure' (2001: 34). He links the two through the work of Foucault on postmodernism (McNay 1994) rejecting the 'unidirectional state or class-orientated power struggle of Marxist or Enlightenment thinking'. Power is seen as a flow that forms a central and fluid process characteristic of postmodern society (Allendinger 2001: 226). Webster (2002: 107) meanwhile links processes to Manuel's *Space of Flows* suggesting that the 'global city is not a place but a process' (Castells 1989: 386). Castells himself views the new 'informational technological paradigm' that he has identified as founded upon the combination of a well-educated labour force, an appropriate social organisation and an institutional framework that maximises 'information flows and connects them to development tasks' (Castells 1989: 15–17). This is all underlined with a network of processes along which self-regulating flows of information ensure efficiency and efficacy.

Shields also describes the characteristics of flow (1996: 3) noting that it normally has a tempo and rhythm as well as direction. Rather than just another way of expressing process, they always possess content, whilst process:

> generally indicates the transformative gap between states or dispositions (and is) strongly defined on the basis of origin and terminus as a definite line or path between two points… flows signal pure movement, without suggesting a point of origin or a destination, only a certain character of movement, fluidity and direction. They are relational… they have a Fate but no destiny.

He goes on to use Virilio's (1999) example of ice flows which under pressure become plastic and thus exhibit intensity and motion. Viscosity measures the degree of intensity as a relative motion—a tendency to flow. Viscosity is therefore time and material together whilst flow combines viscosity and direction. Flows have direction but no purpose, and they do not flow to any specifically defined place but are controlled by topology (hills, valleys, communication channels, railways, etc.) and also by laws, taboos, and many social regulations and inhibitions. This in globalisation terms leads to *deterritorialisation* and *reterritorialisation* with flows of people, money, data and commodities crossing from territory to territory, across boundaries something also identified by Brenner (1999: 60) in considering new geographic networks and increased mobility and flexibility. Along with Castells' *Space of Flows* (1996), he points out Jameson's postmodern hyperspace (1991), Ruggie's (1993) interpretation of the EU as a postmodern political form, Appadurai's (1996) ethnoscapes (Sidaway 1995: 493), Ohmae's (1995) borderless world and O'Brien's (1992) end of geography. In addition, Rosow (2005) says much the same.

Meanwhile, Lefebvre (1991: 206) identifies a rhythmic quality to flows:

> The way in which rhythms may be said to both embrace both cyclical and linear is illustrated by music, where the measure and the beat are linear in character, whilst motifs, melody and particularly harmony are cyclical… Much the same may be said of dance, a gestural system whose organisation combines two codes, that of the dancer and that of the spectator (who keeps time by clapping or with other body movements): thus, as evocative (paradigmatic) gestures recur, they are integrated into a ritually linked gestural chain.
>
> What do we know about rhythms, as sequential relationships in space, as objective relationships? The notion of flows (of energy, matter etc) is self-sufficient only in political economy. It is in any case always subordinate to the notion of space. As for drive, this idea is a transposition onto the psychic level of the fundamental, but at the same time disassociated, idea of rhythm. What we live are rhythms – rhythms experienced subjectively. Which means that, here at least, lived and conceived are close – the laws of nature and the laws governing our bodies tend to overlap with each other – as perhaps too with the laws of so-called social reality.

Both Shields and Lefebvre are not the only ones to note the relationship between rhythm and flow. Deleuze and Guattari (1988: 363–364) had suggested that there were important connections at a much earlier time even placing it within a maritime context:

> The sea as a smooth space is a specific problem of the war machine. As Virilio shows, it is at sea that the problem of the *fleet in being* is posed, in other words the task of occupying an open space with a vertical movement that can rise up at any point. In this respect, the recent studies on rhythm, on the origin of that notion, do not seem entirely convincing. For we are told that rhythm has nothing to do with the movement of waves but rather that it designates *form* in general, and more specifically the form of a *measured, cadenced movement*. However, rhythm is never the same as measure. And though the atomist Democritus is one of the authors who speak of rhythm in the sense of form, it should be borne in mind that he does so under very precise conditions of fluctuation and that the forms made by atoms are primarily large, non-metric aggregates, smooth spaces such as

> the air, the sea or even the earth… There is indeed such a thing as measured, cadenced rhythm, relating to the course of a river between its banks or to the form of a striated space; but there is also a rhythm without measure, which relates to the upswell of a flow, in other words, to the manner in which a fluid occupies a smooth space.

Miller (1993: 29) continues the theme commenting on the contribution of Deleuze and Guattari and suggesting that they have their own 'ethic of flow' and relating this directly to nomadology. Flows are seen as 'abstract but real' and can only be represented as indexes on a segmented line. However, 'that line and those indexes exist only by virtue of the flow suffusing them' (Deleuze and Guattari 1988: 218 and 266).

We saw Urry's (2010: 353–354) use of fluids in the last chapter to emphasise the significance of process and its metaphorical relationship in understanding globalisation. This in turn helps to understand the changes that are needed in the design of maritime governance and policy-making. Taking this further, he continues by emphasising how the fluid metaphor can draw us into an appreciation of flows and goes on to suggest that globalisation is actually characterised by a wide variety of machines and technology that:

> dramatically compress or shrink time-space. These technologies carry people, information, money, images and risks and flow within and across national societies in increasingly brief moments of time.

Castells (1996: 469) sees this as a network, but networks in themselves do nothing, only providing the framework upon which these movements can flow like fluids. Cresswell (2006:1) emphasises the importance of flow in discussing mobility suggesting that it is *everywhere*, playing a:

> central role in the discussions of body and society (Bale and Sang 1996; Cresswell 1999; Young 1990). It courses through contemporary theorizations of the city (Graham and Marvin 2001). Culture we are told, no longer sits in places but is hybrid, dynamic—more about routes than roots (Appadurai 1996; Augé 1995; Chambers 1994; Clifford 1997; Grossberg 1993; Gupta and Ferguson 1992).

Flows are seen as a representation (evidence even) of progress, freedom, opportunity and modernity although contrasting as we have seen with shiftlessness, deviance and resistance (cf. nomadism). Flows and the mobility they represent reflect society as it has developed, the intensity of globalisation, and as such have to be represented in maritime governance and policy-making. Flow, mobility, process and change are central to the human experience and in many ways lie behind the more obvious manifestation of place. Cresswell (2006: 25) agrees:

> If something can be said to be fluid, dynamic, in flux, or simply mobile, then it is seen to be progressive, exciting, contemporary. If on the other hand, something is said to be rooted, based on foundations, static, or bounded, then it is seen to be reactionary, dull, and of the past.

Serres (1993) sees it all in terms of angels who as messengers act as representatives of movement (8–12). He sees flux and change everywhere, news of which

at some significant times (e.g. most famously at Christmas) is brought by angels (25–35):

> *The Reader*: Why should we be interested in angels nowadays?
>
> *The Author*: Because our universe is organized around message-bearing systems, and because, as message-bearers, they are more numerous, complex and sophisticated than Hermes, who was only one person, and a cheat and a thief to boot.
>
> Each angel is a bearer of one or more relationships; today they exist in myriad forms, and every day we invent billions of new ones. However we lack a philosophy of such relationships.
>
> Instead of weaving networks of things or of beings, let us therefore map some of the interlacings of paths. The angels are increasingly drawing up the maps of our new universe. Serres (1993: 293).

Pred (1984: 280) even interpreted place in terms of flow suggesting it can be 'conceptualised partly in terms of the unbroken flow of local events'. Any social event is actually the 'passing manifestation of a complex process' (Pred 1984: 292).

Cresswell goes further in analysing the positive and optimistic attitude that exists towards flows and suggests that this is at times unfounded. Taking the human reproductive system as his example, he suggests that 'textbook descriptions… are remarkable for the way they give meaning to bodily processes' in a way that academic literature would normally avoid. Martin (1990: 76) provides support with evidence that menstruation is commonly associated with language such as 'degenerate, decline, lack and deteriorate'. Meanwhile, popular textbooks on male physiology are somewhat different:

> The mechanisms which guide the remarkable cellular transformation from spermatoid to mature sperm remain uncertain… Perhaps the most amazing characteristic of spermatogenesis is its sheer magnitude: the normal male may manufacture several hundred million sperm per day. Martin (1990: 76).

Language of this sort remains common today with a 'mobile sperm cell penetrating an immobile egg', and this mobility is equated with 'agency'. Martin continues: eggs 'drift' and are 'transported'; sperm 'delivers' with 'velocity', propelled by 'strong' tails. Ejaculation 'propels the semen into the deepest recesses of the vagina' where the sperm are aided by 'energy' so that with a 'whiplashlike movement and strong lurches' they 'burrow through the egg coat' and 'penetrate' the egg. The flow of sperm is active; the egg is a passive recipient. However, more recently, Schatten and Schatten (1996) have started to reflect a new attitude:

> The classic account, current for centuries, has emphasised the sperm's performance and relegated to the egg the supportive role of sleeping beauty. The egg is central to this drama to be sure, but it is as passive a character as the Brother Grimm's Princess. Now it is becoming clear that the egg is not merely a yolk-filled sphere into which the sperm burrows to endow new life. Rather, recent research suggests the almost heretical view that sperm and egg are mutually active partners.

Flows can be understood by what Cresswell (2006: 3) suggest are three relational movements:

- Physical movement—the target of modellers, the movement of ships, cargoes, people, money and data.
- Representational flows—ideological in nature and conveying through metaphors other meanings of flows and movement—freedom, transgression, creativity and the like.
- Flows as a representation of mobility in the way we exist in the world. Our way of walking, our inability to sleep on a flight and our response to wind in our faces are all reactions to flows. Delaney (2003) suggests that 'human mobility implicates both physical bodies moving through material landscapes and categorical figures moving through representational spaces'.

However, earlier this had been taken much further by Knox (1995: 244–245) who identified six principal categories (also based in part on the work of Appadurai 1990):

- *Technoscapes* produced by flows of technology, software and machinery disseminated by transnational corporations, supranational organisations and government agencies.
- *Finanscapes* produced by rapid flows of capital, currency and securities and made visible not only through teleports and concentrations of financial service workers but also through the rapidly changing geography of investments and disinvestments.
- *Ethnoscapes* produced by flows of business personnel, guest workers, tourists, immigrants, refugees, etc.
- *Mediascapes* produced by flows of images and information through print media, television, social media, smartphones, film, etc.
- *Ideoscapes* produced by the diffusion of ideological constructs, mostly derived from Western world views—including democracy, sovereignty, citizenship and welfare rights.
- *Commodityscapes* produced by flows of high-end consumer products and services including clothes, interior design, food, personal and household objects which signify taste and distinction.

To them can be added flows of raw materials and manufactured goods which, whilst less fashionable in the debate on globalisation and modern society, remain the most significant of all in terms of quantity and in the maritime sector are dominant both in the bulk and liner sectors. Whatever categories of flow dominate, they have always been on the move, 'filtered and stylised through particular networks and associations, passing through many channels of transmission' (McLennan 2003: 555). Flows are nothing new, and as such the seeming inability satisfactorily to accommodate them into maritime governance is inexcusable.

It is already apparent that flows have a close relationship to globalisation. Taylor (2000a, 2005: 705) considers that a network of city-states (e.g. Singapore, Hong Kong) and suprastates (e.g. the EU) now operates over and above

nation-states. In some cases, this can even be state-like cities within nation-states that have assumed so much power and influence that they operate as intra-states (e.g. in the maritime sector Rotterdam, Piraeus, London, Oslo). The flows of information, money and influence that characterise these network processes undermine the traditional role of the nation-state generating a globalised society exemplified by shipping and associated port communities. Globalisation thrives (in fact both needs and generates) flows of many types, and effective governance must take explicit note of this in its design and application.

Paasi (1998: 72) places it in the context of territoriality using Sack (1986: 1) as his inspiration. Territoriality is a 'spatial strategy which can be employed to affect, influence or control resources and people by controlling area'. This globalisation strategy is part of the new 'world of flows' themselves becoming increasingly complex characterised by overlap and conflict. Following postmodern trends, the spatiality of the national state has become associated much more with flow rather than territory and across all scales—local, regional, national, supranational and global.

> Power is diffused in global networks of wealth, information and images 'which circulate and transmute in a system of variable geometry and dematerialized geography' (Castells 1997: 359). Power flows in the codes of information and in the 'images of representation around which societies organize their institutions and people build their lives and decide their behaviour' (Castells 1997: 359). Paasi (1998: 82).

Storper (1997: 177–180) takes all this much further. He imagines the emergence of a 'global supply oligopoly' which would operate within a hierarchical structure and replace all semblance of a territorial society as we know it. Resources would have no specific place dependence and would flow between locations contingent upon issues like scale economies. Production could take place almost anywhere facilitated by the smoothness of flows between locations which would virtually eliminate costs. Although it may seem unrealistic at the moment, one day in the future it may well be possible to move materials without transport (i.e. at nil or virtually nil cost) which would free up almost the entire planet for locational choices. This would of course destroy the shipping industry overnight but leaving that aside for the moment, just think of the nineteenth-century postal service—and what those using it at that time would think of emails, faxes, texts, television, radio and so on. All virtually instantaneous and almost free (certainly by comparison); times do change.

This flexibility in location is what the current moves in globalisation are moving towards. Production is moving towards infinite flexibility as transport friction declines, technology makes resources more widely available, and training and education make workforces more locally suitable (consider the likelihood of the use of North Korean or Chinese labour 50 years ago). The result is what Storper terms 'pure globalisation':

> Low wage, low skill, low sunk cost manufacturing processes, certain highly standardised consumer durable manufacturing (where sunk costs are higher, but modular and widely available equipment is used) and certain consumer services where centralised production can be combined with local delivery, come to mind.

Rodrigue et al. (2009) (Fig. 6.1) suggest that there are three main types of globalised flows, and although it is rather simplistic (there is no mention of money for example), it provides an interesting basis for appreciating the close relationship that exists.

And finally, Taylor (1996: 10) sees the new world of flows focussing upon cities rather than flows reflecting to a certain extent the feelings of Marston et al. (2005: 423) citing Smith (2003: 570) as an example of the feitishisation of 'overzealous flow enthusiasts'.

> In contrast to Sassen's (2006) interest in scales, boundaries and territories, any ontology of globalisation fluidifies such solidified thinking revolving around such motifs as fluidity and flow, movement and mobility, folds and networks. A consequence of that ontology – where all that is solid melts into air – is a rejection of scales and boundaries altogether as globalisation and world cities are too intermingled through scattered lines of humans and non-humans to be delimited in any meaningful sense.

Reverting to the principles of hierarchies, Taylor suggests that global governance may well need to be based upon a political organisation that 'recognises leagues of cities at different levels of that hierarchy. Such a framework would cut across states and nations and provide the architecture for a relatively egalitarian, decentralised, non-territorial world'. He goes on in a later paper (Taylor 2000c: 1111–1112) to place the discussion in the context of globalisation suggesting that statism and the belief in the inevitability and value of nation-states are working against the true reality of the domination of flows over artificial territoriality. The traditional vision of the world as a 'mosaic of states' is not a necessary (or perhaps even desirable) one. Some form of 'metageography' is needed to 'escape from embedded statism' which will place flow central to understanding the structure of

	Trade	**Migration**	**Telecommunications**
Nature	Flows of physical goods	Flows of people	Flows of information
Types	Raw materials, energy, food, parts and consumption goods	Permanent, temporary (migrant workers), tourism, business transactions	Communication, power exchanges, symbolic exchanges
Medium	Transport modes and terminals (freight)	Transport modes and terminals (passenger)	Transport modes and terminals (postal), telecommunication systems
Network	Hub and spoke with interconnections	Hub and spoke	Redundant and diffuse (point to point)
Main Gateways	Ports	Airports	Global cities
Speed	Low to average	Slow to fast	Instantaneous
Capacity	Very large	Large	Almost unlimited

Fig. 6.1 The flows of globalisation. *Source* Rodrigue et al. (2009)

the global economy and society. He quotes Arrighi (1994: 81) who says it better than most; our 'deficiencies in perceptual habits' causing:

> non-territorial spaces-of-flows to have gone unnoticed alongside the national spaces-of-places throughout the history of the modern world system.

Space of Flows

> Confucius: 'Do you think me a learned well-read man?'
>
> 'Certainly' replied Zi-Gong. 'Aren't you?'
>
> 'Not at all,' said Confucius. 'I have simply grasped one thread which links up the rest.'
>
> *Confucius*, quoted in Friedmann (2000: 112) from Castells (1996: 1).

Castells' *Space of Flows* is not the central focus of the debate about maritime governance, but as a major philosophical step in the development of an understanding of modern society and focusing as it does on flows, it cannot be entirely ignored. It is also central to an understanding of globalisation, itself a major force lying behind the need to consider dynamic governance:

> The internationalization of post-war capitalism has produced a lived experience in which 'the space of flows… supersede(s) the space of places' (Henderson and Castells 1987). Watts (1991: 9).

There is a mountain of literature which has looked at the concept. We cannot consider it all here, but it includes Knox (1995: 244–245), Thrift (1995: 18, 20), Waterman (1999), Soja (2000: 212–216), Taylor (2000b: 161), Friedman (2000), Harvey (2000: 195), Yeung (2000: 201), Dicken et al. (2001: 93), Webster (2002: 107), Allen (2003: 63–64), Mol (2007: 301) and Hassan (2009: 11). In addition, there are also the core Castells texts (1989: 169 and 348–353), (1993), (1996) (particularly 378–428 and 469–478), (1999: 295–296), (2000) and Carnoy and Castells (2001).

Stalder (2002b) refers back to Heraclitus and his discussion of flow and the constant transformation of nature. However, he suggests that Castells' contribution is to take this much further referring to *Space of Flows* as a social condition and a concept that became fully understood during the 1970s and was first outlined by Castells in the 1980s (Stalder 2006: 46). He defines it as 'that stage of human action whose dimensions are created by dynamic movement rather than by static location'—and the relationship to our earlier discussion of change, movement and dynamism is clear. Castells (1996) places 'distant elements—things and people—into an interrelationship that is characterised today by being continuous and in real time' (Stalder 2002a: 5). Because this now takes place in almost instantaneous real time, this enables space to contract and expand quickly changing the very nature of human activity, the application of ideas and policies and the mechanisms needed to govern them. Shipping, despite being the slowest of modes, is affected by this as much as any other activity and because of its central position within

globalisation, in many ways much more so. *The Space of Flows* as a concept consequently has much relevance for a new interpretation of maritime governance.

Examples abound. Zook (2003: 1263) suggests the global financial system (Sassen 1991) and offshore banking (Roberts 1994) along with Russian criminal mafia networks and narcotic supply chains (Castells 1996: 414, 1998: 166–205). Stalder (2002b) even provides us with a maritime example. Taking Amsterdam as an old port city, he begins by identifying the three main elements of the *Space of Flows*—the medium through which things flow; the products that flow; and the nodes between which the flows circulate. Historically, Dutch long-distance trading used the ocean as the *medium* possessing certain characteristics that affected the flows which might use it—it was unpredictable and enabled only slow movement for example, and consequently, only certain *products* could flow (e.g. spices) and others could not (e.g. fresh fruit). Flow media and their content are always related—thus financial information lends itself to modern communications (and much has changed in the shipping world because of this); written information on prices and currencies transported by sailing boat would be useless. *Nodes* meanwhile are harbours, ports and trading posts, and if the world had only a single harbour, then 'ships are mere entertainment' (Stalder 2002a: 5). Nodes are interfaces which create a membrane of flows. The distance between ports and the maritime space and time between them are relatively fixed and increasingly predictable, as they show signs of stability. In contrast, the modern development of globalised communications shows no such signs with the promise of infinite expansion in area and volume and infinite contraction in time. This contradiction between the traditional and the future is one that particularly affects the maritime sector and illustrates the problems of developing effective maritime governance.

In a later contribution, Stalder (2006: 152) stresses how the *Space of Flows* is supported by empirical reality:

> Nearly all the strategically dominant activities – generating most of the financial wealth and administering the most powerful institutions – operate through the space of flows and their relative power, compared to activities organized on a purely local basis, has only increased. The global elite is still relatively cohesive, dominating fragmented population, even if the resistance and mutual interconnections of the latter have increased. Finally, the dominant activities are still highly clustered in a few central nodes.

As Castells (1989) wrote:

> While organisations are located in places, and their components are place-dependent, the organizational logic is placeless, being fundamentally dependent on the space of flows that characterizes information networks. But such flows are structured, not undetermined. They possess directionality, conferred both by the hierarchical logic of the organization as reflected in instructions given, and by the material characteristics of the information systems infrastructure.

Central to the concept is the independence that the *Space of Flows* allows for geographical location, something that makes maritime governance particularly difficult. Whilst shipping interests will be located at certain selected nodes, these nodes and the relationship between them are located within an indeterminate flexible space made even more complex by the mobility exhibited by the ships

themselves. Whilst it may have to be somewhere (and even this can be questioned as capitalist interests increasingly expand into virtual communities and outer space), very little commercially now needs to be specifically anywhere.

Not everyone is enamoured with Castells' ideas. Thrift (1995: 22) was soon on the case accusing the *Space of Flows* of becoming 'hoary with age' almost as soon as it was outlined. He suggests that it was not a new idea with evidence of circulation within the nation-state of ideas and letters dating from the eighteenth century or even earlier. The spread of the railway and telegraph in the nineteenth century pushed the obsession with speed and flow further which continued throughout the twentieth century to the current day and the domination of electronic (and almost instantaneous) communications.

He goes on to question the suitability of Harvey's concept of time-space compression which is closely linked to that of the *Space of Flows*, associating it with historical accounts of the increasing pace of life with societal hysteria. Virginia Woolf provides a comment on fragmented times:

> After twenty minutes the body and the mind were like scraps of torn paper tumbling from a sack and, indeed, the process of motoring fast out of London so much resembles the chopping up small of identity which precedes unconsciousness and perhaps death itself that it is an open question in what sense Orlando can be said to have existed at the present moment. Woolf (1928) cited in Prendergast (1992: 193).

This does not deny the existence of a speeded-up world nor an electronic society, but it does imply that the *Space of Flows* and similar models are neither new nor nothing more than in some ways an expression of the obvious.

Space and Flow

> That's what you see beyond the galvanized steel guardrails. That is the informational city, a land of virtual networks ever more severed from their social context… Check our basilica's view of US Highway 101 gashing through the flat valley in ominous shades of black and white, a vast parking lot to the left, empty fields to the right. Transmission wires are low across the sky and trail into the distance. This is the space of flows. On the horizon sit carceral towers, the seeming prison houses of software engineers and product managers. Latent in the image are layers of spatial data; vestigial scraps of nature; the low defining hills; cars streaking along the highway, their own vectors in the landscape. Jeff Byles commenting on the photographs of Gabriele Basilico at the San Francisco Museum of Modern Art Exhibition of Silicon Valley, *Modern Painters Magazine*, quoted in *Slow Muse*, February 28, 2008 (Fig. 6.2).

Taylor (2000b: 160) summarises it nicely. 'It is quite odd that in a world produced and reproduced through a myriad of flows, connections and linkages, the metageographic emphasis should be on boundaries'. Meanwhile, Luke (1991: 321) is confident that the concept of place is being 'resituated within the hyperreality of flow, understood in terms of iconic/symbolic access to or process through networks of informational circulation'. Or to put it in understandable English, flows are as important as place in understanding the working of society.

Fig. 6.2 San Francisco, Gabriele Basilico. *Source* http://therumpus.net/2009/04/what-you-think-is-sad-gabriele-basilico-and-san-francisco-noir/

In Stalder's opinion (2006: 10 and reiterated in Undated: 5), the move has been from 'place-based conflicts to flow-based forms'. Although using the terminology of 'place', it is fair enough to interpret much of this as 'space':

> Thus people do still live in places. But because the function and power in our societies are organized in the space of flows, the structural domination of its logic essentially alters the meaning and dynamic of places. Experience, by being related to places, becomes abstracted from power, and meaning is increasingly separated from knowledge. There follows a structural schizophrenia between two spatial logics that threatens to break down communication channels in society. Castells (1996: 459) quoted in Ballve (2011: 2).

Santos (1995: 176) interprets this as a new dimension for space giving it density and depth generated by the increasing number and significance of flows that cross it, a construct that is also pursued by Sum (2000: 232). This is confirmed by Thrift (1995: 27) although he considers the debate on Space of Flows and time-space compression and their interaction in space as at least in part 'illegitimate'. This follows from Ruggie's (1993: 172) interpretation of globalisation which centres on the idea of the side-by-side existence of the Space of Flows (decentred and operating in real time) and the nation-state characterised by its essence of place, the latter having as much significance as ever and at least comparable with that of flows. Friedmann (2000: 113), however, reverts to the ideas of Santos,

emphasising the significance of flows over the space they occupy, diminish or virtually eliminate.

Blatter (2001: 176) places it all in the context of the European Union contrasting the traditional 'spaces of place' with the emerging Space of Flows and thus presenting immense difficulties for governance. Meanwhile, Cresswell (2006: 2) says much the same thing but interpreting flow as mobility. Mobility is viewed as central to modern society reflecting values of freedom, choice and opportunity and in so doing neoliberalism currently so popular in Western democratic society. Yet this mobility remains largely unspecified and even ignored, 'a kind of blank space that stands as an alternative to place, boundedness, foundations and stability'.

Castells himself does not shy away from the issues of spaces and places in relation to flows (Carnoy and Castells 2001; Castells 2000: 13–14, 2002: 553–554) something that Shields (1997: 6) had noted some time earlier in a rather critical analysis of Castell's limiting the role of flows to the space between places. Castells places his comments specifically in the realm of form, and therefore particularly relevant to this discussion, he sees a bipolar relationship between the Space of Flows and the Space of Places where the former represents the increasingly electronic links between the latter, places where global production and media networking take place. These places form a fundamental part of the flows that characterise modern shipping with the flows providing the connection between them. What he sees as critical and a symbol of the change in globalised society is that these locations are formed in the light of the flows of information, money, data and the like and both flows and spaces in turn feed off one another and are changed by them. Both place and flow are therefore necessary to define the maritime sector, and together, they constitute the form that we can observe. Maritime governance at present provides little accommodation for these relationships and remains institutionalised within a fixed and formalised framework that takes little account of the new 'cultural sociology of space, flows and mobilities' which are a 'key dimension in understanding material practices in society' (Jensen and Richardson 2004: 86). Castells (1996: 412, 423) sees this as a dialectical tension between two forms of spatial logic or forms of rationality—his Spaces of Flow and Place—the relationship between which he presents in some detail (e.g. Castells 1999: 296–297).

Zook (2003: 1262) suggests that Castells' view does not undermine the significance of space or place but instead 'provides the means for the reconstitution and reorganisation of social connections and geographic concentrations at all levels within the economy' referring specifically to the relationship between place and flow. This interaction has been exacerbated by the communications revolution that remains in progress and its relationship to 'existing organisational, economic, political and regulatory structures (Graham and Marvin 2001; Leinbach and Brunn 2001; Wheeler et al. 2000)' (Zook 2003: 1262). Major activities benefitting from physical synergy remain concentrated (one only has to look at maritime clusters in London, Hong Kong, Piraeus, Oslo, etc., for evidence of this) despite the flexibility and freedom inherent in communications (Leaner and Storper 2001; Lo and Grote 2002). At the same time, other maritime activities (e.g. distance training, technical check-ups) have become possible through remote Internet access,

whilst maritime consultancies have the opportunity to locate almost anywhere. The result is an industry characterised by complexity in geographical and organisational structures (Leyshon 2001) and by what Gritsenko (2013) and Gritsenko and Yliskyla-Peuralahti (2013) describe as polycentric contextuality.

Place, territory and flow are clearly closely linked, something identified by many including Taylor (1996: 9) suggesting that 'the movement of flow is the opposite of the fixity of territory'. Ruggie (1993) notes that nomads possess sovereignty over flow, something that questions the conventional idea of sovereignty represented by the territory of the nation-state and also hints at the possibility of a governance associated with flow rather than place. Ruggie goes on to suggest that the Space of Flows and its related cyberspace are also an example of a mobile sovereignty with what he terms 'non-territorial regions… undermining territorial absolutism'.

Storper (1997: 188–189) identifies the problems faced by nation-states under pressure from globalisation and the impact that the rise of flows of people, finance and information has had upon their governance and the influence they can have in governing others. Examples abound from the global shipping sector where the 'race to the bottom' and the 'tragedy of the commons' both manifest themselves in flags of convenience, substandard shipping, tonnage taxation and the like. He also goes on to stress the failure to harmonise rules and regulations across nation-states when global competition allows and encourages flows of influence and materials to occur on an unprecedented level. Multinational shipping companies are quick to recognise the opportunities presented by the move from a static formalised industry to one characterised by movement, dynamism and flows.

We noted earlier how Brenner (1999: 60, 61) provides considerable support reflecting on how flows are 'supplanting the inherited geography of state territories that has long preoccupied the sociological imagination', a process of deterritorialisation earlier recognised by Deleuze and Guattari (1988) and re-emphasised by Shields (1997: 4)—'flows tend to appear, in what one might call b-Grade Deleuze-imitators, to be understood as existing only as moments of deterritorialisation and reterritorialisation, passing from one to the next, from here to there from state to state'. Meanwhile, Blatter (2001: 178) notes Agnew's (1998) interpretation of the new world structure where 'cores, peripheries and semi-peripheries are linked together by flows of goods, people and investment'. Thus, territory and flow become one and the same, and regardless of the existence or otherwise of the nation-state and its role, the governance of any sector with the remotest of global characteristics has to be designed to meet this.

The relationship between flows and networks is clear with the latter relying upon the former for their existence and identification. Thus, the maritime sector is characterised by flows of data, goods, people and finance along identifiable networks either predetermined (e.g. electronic communications carrying messages and finance; shipping trade routes carrying containers and people) or generated as a consequence of the industry's needs (e.g. the flow of bunker oil and LNG to provide for shipping movements or the flow of capital between banks to provide financial support to the industry).

Castells' appreciation of a network society has been extensively discussed by Dickens and Ormrod (2007: 105–108) and has already been considered earlier in this chapter. Consequently, it will not be repeated here except to note how it builds on the work of Harvey (e.g. 1989) and is further developed by Barney (2004) and Yeung (1998, 2000: 201) the latter seeing it as a 'space of network relations'. In Friedmann's (2000: 113) words:

> The Castellsian world is polarized between what he calls the Net and the Self. Captured by global capital, the Net is dominant, while the Self, besieged on all sides, retreats into communities of resistance built around primary identities of religion, ethnicity, nation and territory.

Castells emphasises that the network society, dominated by flows, is a consequence of the global deregulation of capitalism, the depersonalisation of ownership and control of capital, the growth of countercultural movements, the resurgence of neo-liberalism, the 'mediafication' of exchange and understanding, the failure of nation-states to understand or appreciate the significance of Urry's (2000) global fluids and the growth of electronic communications (McLennan 2003: 560). The influence of these factors is captured appropriately by Taylor (2005) in his analysis of the relationship between inter-states, suprastates and transstates. Each is characterised by a network of flows that operates on sometimes conflicting and often overlapping levels forming polycentric governance dimensions that are determined by their respective contexts—economic, cultural, social, financial, technical, political, organisational and so on. We return to the idea of polycentric governance in the final chapter.

Governance, Speed and Flow

In anticipation of what comes next, we turn finally in this chapter to issues of speed and attempt to place them in the context of flow. This will conclude our journey through mobilising maritime governance. In so doing, the issues of dynamic governance as considered by both Cashore and Howlett (2007: 532) and Neo and Chen (2007: 1–5, 10–13) and applied to the maritime sector will be drawn together before we begin in the final chapter to look at earlier attempts to develop cultural models of activity which might be applicable to the maritime sector and policy-making and then to place it all within its broad capitalist framework and narrower polycontextual structure; but first to governance and flow.

Friedmann (2000: 113) sees flow at the centre of governance, and this is no less the case for the maritime sector than any other. He identifies a 'world of binaries' combining powerful and weak stakeholders and global and local influences which are linked together by unequal flows of influence and power. In the maritime sector, these binary relationships manifest themselves as shipowners, shipping and international port corporations and global commodity traders battling against (commonly successfully) the traditional nation-states, city port authorities and fragmented international policy-makers exemplified by the IMO, OECD, WTO and ILO.

This is emphasised by Spaargaren and Mol (2008: 351–352) who begin by repeating Friedmann's observation of the binary divide where:

> highly mobile flows and global networks (of capital, production, communication, international institutions, crime, transnational religions) are combined into global structures and processes that brutalise communities and local identities residing in the so-called places of space. What is left for local actors (worker unions, environmental movements, communities etc) are protest actions and the development of protest identities against the overwhelming power of the actors (and their neo-liberalist ideologies) in the space of flows.

The consequence is that the flows have become more important than the nodes between which they flow (the transfer of information of all sorts is superior in influence and impact than the nation-states between which they pass) forcing the nodes into strategic actors playing their part within a governance framework that is dominated by the movement of information rather than its possession, hence the need for maritime governance that focuses upon this movement rather than its specific origin or destination as these are likely to be different by the time decisions are made within a static framework. This constant process of change and disruption makes a mobile, flexible and dynamic form of governance essential if it is to be effective.

Nation-states have been transformed into 'mediators', attempting to improve the competitiveness of their maritime economies by allying their economic interests (flags, registries, financial and legal regimes, taxation incentives, etc.) to those of global shipping interests which results in favourable flows of information, money, influence, goods and people both into and out of their economy. Spaargaren and Mol (2008: 352) cites Sassen (2006) and suggests that:

> the organising and operational logic of markets increasingly infiltrates the organising and operational logic of states. Thus nation-states seem to fall away as 'mediators' between the space of flow and the space of place, which renders the concept of governance problematic.

You can say that again. The very fluid nature of the maritime industry presents some of the more complex difficulties for developing effective governance, but this in turn makes it more important to open the discussion on these issues. In the final chapter, we shall turn to an appreciation of a new design that might move towards some sort of solution but which might as well require some lateral thinking. But remember, at stake are human lives and the global environment. Isn't that enough?

Despite this, all is not lost. Torpey (2007: 52) outlines how Marx had suggested that capitalists had expropriated the means of production from the workers in order to exploit them and make them dependent for wages and survival. Weber turned this somewhat on its head to argue that the modern state had expropriated the right to exercise violence from the individual thus helping to control it and legitimise its usage. Only those other than the state licensed to use violence (e.g. security guards at ports or on-board ships to prevent piracy) were permitted to do so and those that transgressed would be punished. This same argument could be used to explain how nation-states expropriated the legitimate means of movement across international

borders of both flows of people and goods; how mechanisms for punishment for violators was devised; and how this has now been discredited by the globalisation of the maritime sector and its associated activities making the need for consideration of a new governance framework essential. Curiously and as we have seen, the original design of movement control continues to rest with the nation-state despite the globalisation of its constituent stimuli. It is this discordance between flow and power manifested in the inadequacies of shipping and ports policy along with the increasing difficulties associated with global migrancy, the transfer of illegal goods (drugs, weapons, etc.) and the increasing illegal (and commonly immoral) financial and legal flows that has to be addressed. As Torpey (2007: 57) suggests:

> In order to extract resources and implement policies, states must be in a position to locate and lay claim to people and goods.

This image of 'penetration' no longer holds true despite Foucault's insistence of extensive 'surveillance' by the state—the latter's grasp no longer embraces societies adequately to achieve this.

Conclusions

Sum (2000: 233) helps to bring all the ideas of time, space and flows together in the context of a multinational, globalised commercial industry which could be shipping as much as anywhere else:

> Commercial time-space flows are influenced by the practices of networks of multinational service firms and their regional/local counterparts located in the 'global-gateway' cities (Sassen 1991). Their operations are permitted on the provision of the producer and distributive services and logistics information (i.e. insurance, legal services, consultancies, logistic management, transportation, retail) that 'facilitate all economic transactions and the driving force that stimulates the production of goods' within the 'regional chain' (Riddle 1986: 26). These networks of service firms co-ordinate and narrate the time and space of global-regional and regional-local next of the production and distributive chains. In temporal terms, service firms in the 'supply-pipeline' manage information flows that balance cost options and lead- and transit- time in time-bound projects. This is increasingly coordinated in 'electronic space' insofar as information is substituted for inventory (i.e. 'virtual' inventory) at the centre so that 'quick responses' can be made directly into the replenishment systems through local outsourcing or procurement (Christopher 1992: 108–124).

In beginning to understand the substantial importance of flow in the future and continuing development of the globalised world including shipping and thus its governance, we can revert to two themes. The first was put forward by Lash and Urry (1994: 323) and their consideration of what they termed disorganised capitalism—a new epoch where 'processes and flows have transformed (the) pattern of a dozen or so of organised capitalist societies within the core of the North Atlantic Rim'. These flows and processes included:

- The flowing of capital and technologies to 170 or so individual 'self-governing' capitalist countries each concerned to defend its territory;

- Time-space compression in financial markets and the development of a system of global cities;
- The growth in importance of internationalised producer services;
- The generalisation of risks which know no national boundaries and the fear of such risks (e.g. Iraq, Afghanistan, Kurdistan, ISIS);
- The putative globalising of culture and communication structures partly breaking free of particular territories;
- The proliferation of forms of reflexivity, individual and institutionalised, cognitive and especially aesthetic;
- Huge increases of personal mobility across the globe, of tourists, migrants and refugees;
- The development of a service class with cosmopolitan tastes especially for endlessly 'fashionable' consumer services provided by one or other category of migrant;
- The declining effectiveness and legitimacy of nation-states which are unable to control such disorganised capitalist flows; and
- The emergence of 'neo-worlds', the kinds of socially and regionally re-engineered cultural spaces which are the typical homelands for cosmopolitan postmodern individuals.

All of which sound remarkably familiar in the light of international shipping and their impact upon maritime governance (Luke 1992; Lodge 1983). Meanwhile from an earlier book, Roe (2013: 422–423) considers the role of outer space and capitalism's need for ever more fixes. Warf (2007: 385) suggests that:

> satellites and earth stations comprise a critical, often overlooked, part of the global telecommunications infrastructure. Castells's space of flows would be impossible without the skein of earth stations and orbital platforms that lie at the heart of the [satellite] industry.

MacDonald (2007: 594) continues the theme of astropolitics and their relationship to flows of information, money and more. Satellites move 'persistently through orbit, structuring the global imaginary, the socioeconomic order and the issue of everyday experience across the planet' (Parks 2005: 7) and as such will have an increasingly important position within the flows of globalised shipping which leads us to speed and someone who has dominated the discussion for some years, Paul Virilio.

We shall look at speed in much more detail in the next chapter, but for the moment, Deleuze and Guattari (1988: 386) provide the link we need:

> One of the fundamental tasks of the state is to striate the space over which it reigns, or to utilize smooth space as a means of communication in the service of striated space. It is a vital concern of every state not only to vanquish nomadism but to control migrations and, more generally, to establish a zone of rights over an entire 'exterior', over all of the flows traversing the ecumenon. If it can help it, the state does not dissociate itself from a process of capture of flows of all kinds, populations, commodities or commerce, money or capital etc. There is still a need for fixed paths in well-defined directions, which restrict speed, regulate circulation, relativize movement and measure in detail the relative movements of subjects and objects. That is why Paul Virilio's thesis is important, when he shows that

> 'the political power of the state is polis, police, that is 'management of the public ways' and the 'gates of the city, its levies and duties, are barriers, filters against the fluidity of the masses against the penetration power of migratory packs', people, animals and goods.

We can see the threads here of our argument relating how governance needs to accommodate the metaphors of movement with the fluidity of modern international society to ensure that the maritime sector produces effective policies to restrict or even prevent the death, pollution and inefficiency that still characterises its everyday activity.

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