

Chapter 1

Introduction: The Art of Economic Geography

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How do you turn economic geography into art? The Mexican painter, writer, and long-time communist Diego Rivera did it between 1932 and 1933 in painting the 25 panels of the mural “Detroit: Man and Machine” at the Detroit Institute of Arts (see cover). The panels tell a rich and complex economic geographical story: extracting resources from the ground, bringing together “hands” of workers from across the world, using various kinds of machinery – furnaces, stamping machines, drills, hoists, conveyor belts – in conjunction with the brawn of labor to manufacture and assemble, and finally produce, the finished product, in this case a car.

The mural was paid for by Edsel Ford, son of Henry, and modeled on perhaps the most famous factory of the twentieth century – the Rouge complex, the Ford automobile manufacturing plant located at Dearborn, Michigan, just outside Detroit. The complex was first used to produce automobiles from 1913. Twenty years later, by the time Rivera came to paint it, it was already a symbol of the modern machine age, and more generally of the energy and might of industrial capitalism. Operations at the Rouge complex were vertically integrated, that is, all the different component processes of manufacture were contained within a single site, and as a result the workforce requirements were immense. At one point 75,000 employees worked there. The “B” building alone was a quarter of a mile long, containing the entire assembly-line operation on a single level (and much of the focus of Rivera’s artistic attention).

The assembly-line technique used in the “B” building was one of Henry Ford’s most significant innovations, and was first introduced to the plant in 1927. Workers stood in place, and the work came to them on a conveyor belt. Once the work task was completed, the belt moved on, making the worker, as one Ford assembly-line employee put it, “nothing more or less than a robot” (quoted in Rochfort, 1987, p. 68). There is a clear sense of that in Rivera’s mural. The workers do not simply tend the machines, but are fully integrated with them, their bodies synchronized with the swirling, ceaseless movement of industrial manufacture at the plant.

In many ways the Ford family were an unlikely patron of Rivera. Ford senior was vehemently anti-left, and anti-union. He once said, “people are never so likely to be

wrong as when they are organized.” What Rivera and Ford shared, however, was a fascination with machines, and the idea that the combination of “human and mechanical action” could produce a “creative power unparalleled in history” (Rochfort, p. 67). To capture that power in paint, Rivera spent his first three months in Detroit meticulously preparing before even picking up a paintbrush. He toured the plant, spoke to workers and engineers, and had hundreds of photographs taken of the different parts of the production process (see Detroit Institute of Arts, 1978). What emerges, in spite of Rivera’s communist sympathies, is a relatively uncritical portrait of industrial capitalism at the Rouge. True, one of the workers is carrying a partially obscured placard with the words “We want.” But the full placard would have read “We want beer,” a popular anti-prohibition slogan at the time. In contrast, Rivera’s next mural commission, which was for another industrial mogul, John D. Rockefeller, was more overtly political, and included Lenin as one of the onlookers. In this case Rockefeller balked, and ordered the finished mural to be chipped off the wall of the Rockefeller Center, New York City, where it had been painted.

For Rivera, the Rouge complex and its production of automobiles was an illustration of a broader phenomenon that he labeled a “wave-like movement” and found in “water currents, electric waves, stratifications of different layers under the surface of the earth, and in a general way throughout the continuous development of life” (Rivera, 1934, p. 50). Economic geography as it emerges from the contributions to this volume is a bit like this, too. The kinds of phenomena that economic geographers study – natural resources, manufacturing, information, money – are always on the move, continually undergoing transformation, morphing into new forms and identities. Of course, capturing that flux and movement is difficult. Diego Rivera did it by painting larger-than-life stories on walls. His 25 panels are a synchronic depiction of the economic geographical processes that produced and maintained the industrial behemoth of 1930s Detroit. But there are clearly other means to make that same depiction, some of which, we would argue, are found in the essays collected here. Of course, they are not couched in a visual idiom, relying on vivid colors or daring brush strokes, but in their own way, we contend, they are just as striking.

Although economic geographers are not in the business of daubing paint, at least in their professional lives, there is an art to what they do. For economic geographers of whatever stripe face the same difficulty as Diego Rivera – to represent on a flat surface economic geographical events that exist “out there.” Rivera’s medium was paint, and his flat surface was a wall, whereas the medium of economic geographers is writing, and their flat surface is a sheet of A4 or eight-and-a-half by eleven inch paper. In both cases, there is a need for appropriate techniques, sensitive interpretation, enthusiasm, dedication, adequate preparation, and prior training. One of the primary aims of this volume is to introduce you to the art of economic geography.

Our Approach

Economic geography has always been a mainstay within geography. But its history as a formal university-based discipline in Anglo-America is quite short, at best a hundred years. As a discipline it grew less out of concerns by economists to generalize and theorize, than the concerns of geographers to describe and explain the

individual economics of different places, and their connections one to another. You can see this in the following quote from a very early German economic geographer, Karl Andree:

I sit at a mahogany table from Honduras. The carpet on which it stands has been manufactured at Kidderminster in England from wool brought by a sailor from the River Plate or New South Wales. The tea in a Berlin porcelain cup came from China or Assam, the coffee from Java, the sugar from Lower Saxony, Brazil or Cuba. I smoke Puerto Rican tobacco in my pipe whose stem grew in Hungary, the material for its Meerschäum bowl, carved in Thuringia, was dug in Asia Minor, the amber mouth piece came from the Baltic Sea, and the silver for the rim from the silver mines of the Erzgebirge, Harz or perhaps from Potosi [Peru]...

This passage was written in 1867, but the questions it raises still resonate. Where are things produced? Under what conditions? How is it that goods produced in one place end up at another? By what means? And who buys them? We're not claiming that economic geography is unaltered since 1867 – as the first section of our volume amply demonstrates, there have been profound changes in approach even over the last twenty years – but the broad kinds of questions that the discipline poses, and the interest in the ensuing answers, persists.

These kinds of questions have also attracted various forms of interest from outside the discipline. The state has always been interested. The beginnings of economic geography as a discipline in the late nineteenth century were directly connected with the belief of various European governments that knowledge of economic geography both buttressed their colonial projects and provided their domestic business class with a potential competitive advantage over rivals. More recently, attention has come from other social scientists. This is new. In the past, economic geography was the great borrower, taking ideas from others. Now, it has begun to lend. One reason is the interest in globalization. By its very nature, globalization is an economic geographical phenomenon, and traditional economic geographical ideas around spaces of flows, and places of control and production, are central to its understanding. While much of economic geography's recent appeal has been to sociologists and political scientists, some economists have also discovered geography. Perhaps the best-known example is the MIT economist Paul Krugman, who, in his work on trade and growth, moved away from the "wonderland of no dimensions" to the greater realism of at least three-dimensional Euclidean space. As he put it in 1991, "I realized that I spent my whole professional life... thinking and writing about economic geography, without being aware of it" (Krugman, 1991, p. 1). Admittedly, some economic geographers still wonder if he is doing economic geography (Martin, 1999), but at least it is a start.

We think, then, that there are some very good reasons to study economic geography, and to study it now. Undoubtedly this is the hubris of every generation of economic geographers. We believe, however, that two developments over the last twenty years – one external to the discipline, the other internal – make economic geography a central body of literature and knowledge for understanding the world at the turn of the millennium.

The first is that since the 1970s there have been some enormous changes affecting the economy, and society more generally: deindustrialization, industrial restructuring, the rise of information technology (IT) and computerization, the feminization of

the labor market, and globalization. Such changes beg understanding, and indeed are already subject to much scrutiny. What emerges from that work is that in many cases these changes are inextricably bound up with issues of space and place. We don't mean merely that, like many processes, they take on particular geographical forms (although there is nothing mere about that), but that space and place are integral to the evolution of the processes themselves. In this sense, economic geographers are in exactly the right time and place to practice their art.

Consider again globalization. Arguably globalization has existed since the very first economic geographers were writing in the late nineteenth century, and likely well before then (certainly it is recognizable in Andree's ruminations). One aspect of globalization that has changed, though, is the means by which it is effected. Whereas in Andree's time it was bound up with Western European colonial policy and bureaucracy, now its prime bearers are multinational and transnational corporations (MNCs and TNCs). MNCs and TNCs are fundamentally economically geographical institutions. Their very definition and rationale is based on the idea of geographical differentiation: that different parts of their operations are located in different places. As such, they are ripe for economic geographical study. Others can and should study MNCs and TNCs, but the sensibility of economic geography is especially suited to the task and, given the role that they play in the globalization process, is ever more germane.

To take another example, the Fordist-style manufacture that Rivera depicted in his murals was increasingly abandoned from the 1970s onwards, and replaced by what was called post-Fordism, or flexible specialization. That move was not only about transforming a particular method of production – from assembly line and Taylorism to batch production and work teams – but also about transforming geography. Flexible specialization implied a set of new spatial arrangements that were part of its very definition. Greater physical interaction and closer proximity between firms became necessary by comparison to the more arm's-length relationship that had characterized Fordism in order to realize the benefits of flexible specialization. Subcontractors needed to be close to the production plant in order to respond quickly to changed demands; R&D staff were brought in from their research facilities, sometimes thousands of kilometers away, to work more centrally in the factory in order to consult with production staff; and workers were no longer spatially segmented along the assembly line, but enjoyed greater interaction and collaboration in work teams. Whatever else it was, the move from Fordism to flexible specialization entailed an economically geographical shift.

These are only a couple of examples, but we hope that they illustrate the broader argument. The recent changes in the economy, which have affected so many people in so many different ways, are not only economic but also fundamentally geographical. Economic geography is relevant not just as background atmospherics, to add ambience and color, but for understanding why economic change occurs at all. It enters into its very frame, its skeletal structure. And what is bred in the bone, comes out in the marrow.

The second reason for the renewed attention to economic geography is that it continues to undergo potent intellectual shifts, making it an arena of discursive ferment and vibrancy. Economic geography, in fact, has long been an important forum for trying out new ideas. Much of human geography's quantitative revolution

of the 1960s, for example, was discussed within the context of economic geography. Since the late 1970s and early 1980s, the discipline has propelled discussions around political economy. As an approach, political economy is pervasive: it is how economic geography is now done. That said, political economy is no single, staid, monolithic tradition, but is multiple, dynamic, and differentiated. Debate is not always friendly, but through it new approaches, new theories, and new possibilities emerge, and constantly invigorate the field.

Political economy as a tradition began in the eighteenth century, but it is perhaps most closely associated with Marx's nineteenth-century writings about capitalism. In both cases, there was the insistence that the political and the economic are irrevocably bound; that the economy cannot be treated as sovereign and isolated, but must be understood as part of a set of wider social processes. While sharing these views, political economists and economic geographers have continued to debate two central questions: the definition of the social, and the nature of the connection between the social and the economic.

For Marx, the answers to those contentious questions were clear-cut. The social meant class relations, which under capitalism primarily consists of an antagonistic relationship between the working class and the capitalist class. Social classes, in turn, are connected to the economy by a functional relationship. This means that the form of the relationship among social classes is set by what contributes best to the development of the economy. Such a functional relationship is certainly not always smooth and unproblematic, but ultimately the economy prevails and produces those social relationships that are most appropriate for its development. If capitalism can best develop by a set of class relations consisting of workers and capitalists, that is what happens. The best, and the most well-known, economic geographical translation of Marx's views about social processes and their connection to the economy was carried out by David Harvey (1982), particularly in his writings during the 1970s and 1980s on the geography of accumulation.

Subsequently, other economic geographers, drawing upon other traditions of political economy, have developed alternative approaches, ones providing quite different answers to the two questions about the definition of the social, and its relation to the economy. This is not the place to provide a full-blown review, but those alternatives include:

- Doreen Massey's (1984) work on spatial divisions of labor. This is much more catholic than Harvey's in its definition of the social, and in the relationship it posits between the social and the economic. (Importantly, place itself partly determines the development of the economy.)
- Regulationist theory. This partly defines the social in terms of institutional and regulatory frameworks, and also attempts to move away from crude functionalism (Tickell and Peck, 1992).
- The analytical approach. This uses both mathematical reasoning and rigorous, formal statistical testing to determine logically how space and place make a difference both to the definition of social processes and to their relation to the economy (Sheppard and Barnes, 1990; Webber and Rigby, 1997).
- Most recently, the umbrella approach, sometimes called the "cultural turn." This brings together a variety of perspectives – post-Marxism, institutionalism,

economic sociology, feminist theory – trying both to widen radically what is included within the social, and also to move away from Marx's functionalism, and instead make use of notions like embeddedness (Martin, this volume), overdetermination (Gibson-Graham, this volume), or cultural performance (McDowell, 1997).

This review is necessarily very brief. Sustained examples of such political economic approaches can be found in the ensuing chapters. Our point, like the one we made about economic change, is that contemporary discussions around political economy make economic geography stimulating and provocative. There is a Chinese saying: "May you live in interesting times." Our argument is that they are here now in economic geography.

Purpose and Organization

Our broad purpose in commissioning the essays that make up this volume is to provide advanced undergraduate and graduate students, and faculty colleagues both inside and outside economic geography, with a sense of the state of the art of economic geography. We chose to focus on the ideas, concepts, and theories current within the discipline, rather than on empirical findings, because a discipline is characterized primarily by the questions it asks. We identified individuals who we thought characterized both the unity and diversity of economic geography, and we asked them to provide their own accounts. We asked only geographers to contribute because, as we argue above, economic geography is quite different from geographical economics (see also Sheppard, 2000). Certainly, exchanges of views between geographers and economists about economic geography are an important part of the evolution of the identity of the discipline, but we leave that task to others (Clark et al., 2000).

The book is organized into five sections. Economic geography is a philosophically diverse discipline, employing and debating a variety of approaches. The first section, *Worlds of Economic Geography*, provides a sense of this diversity. Following the first essay, which provides a historical context for understanding the discipline, the ensuing chapters examine in turn the mathematical modeling tradition, Marxism, and three more recent variations on the political economy theme: feminism, institutional approaches, and poststructuralism. The essays not only convey a sense of the intellectual vitality of the field, but also show that accounts of economic geography, the questions taken to be important, and the methods used to find answers to them, depend on the broad philosophical and theoretical approach taken. In short, accounts of economic geography, as for any discipline, are *situated*; they depend on the point of view of the author, which in turn reflects how he/she is positioned intellectually, politically, and socially. As the volume turns to more substantive aspects of economic geography, we hope you will see how authors locate themselves on the intellectual terrain mapped in this section. As you read the essays in the other four sections, think about where the author is situated, how that affects the questions he or she asks about the topic of the chapter, and how those questions might differ if it had been authored by someone from a different perspective. We cannot include all perspectives on all topics, or the book would be five times as long, but the

possibilities, and actual existence, of those different perspectives is part of what makes the discipline rich and exciting.

Because economic geography necessarily asks questions about things economic, the second section, *Realms of Production*, highlights classic themes in economics: production, work, agglomeration, competition and markets, economic growth, and technical change. In their own ways, each of these essays takes on the task of narrating how economic geographers have approached these topics, and how a geographical approach gives each of them a distinctive twist compared to their treatment in economics, even when economists ask questions about the geography of economic activity.

One of the things that makes economic geography a part of geography is a concern for human–environment, or nature–society, relations, and this is the focus of *Resource Worlds*, the third section. These essays include discussions about nature as an input to economic production; about agriculture, where that relationship is most stark; about political ecology, which has become the central theoretical approach for analyzing agricultural practices particularly in the Third World; about questions of the production of nature within economic geographical processes; and finally about resource towns, the non-agricultural places where production is most closely tied to nature.

Geography has always been a synthetic discipline, taking seriously the relationships between things studied separately in other disciplines (such as nature, and society). In *Social Worlds*, the fourth section, the essays synthesize across the human sciences, treating economic processes as part of other social processes, rather than separable from, superior to, or more fundamental than the rest of society. The themes addressed include: consumption and the family, social class, labor organizations (unions), questions of political governance, organization of producers (corporations), and social and ethnic networks. Each chapter seeks to show the importance of a geographical perspective in understanding the intersection of the economic with the social.

Last, but certainly not least, geography is not just about place but also about space: about how the distinctive economic characteristics of places, and the conditions of economic possibility that they face, depend on their economically geographical interdependencies with other places. In *Spaces of Circulation*, the final section, we turn attention to the geographical flows of commodities, money, and people, and to the transportation and communications systems produced to facilitate them. These essays suggest that even though the world is becoming smaller, one of the core metaphors for globalization, it is also an increasingly differentiated world, in part precisely because the interdependencies between places are increasing. The final essay links geographical thinking about globalization to similar work in international political economy.

In sum, we hope that these essays provide useful resources for further reading in economic geography, and also that some of you will join in this endeavor. We also hope that you are provoked to be critical: that you will reflexively re-examine your current thinking, and ask new questions about the adequacy of economic geography's representations and approaches highlighted here. If so, our goals in compiling this volume will have been achieved.

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