

REVISITING AND REVAMPING AN OLD CLASSIC SIMULATION

Can the old, tried and trusted geography teaching strategies still be relevant in the 21st century?

Recently Dr Charles Rawding (Teaching Geography Autumn 2019) put forward a very cogent argument that a certain old, tried and trusted model (the Burgess model) and approach to the teaching of geography should be resigned to the 'wastepaper' bin of geographical education. I could see where he was coming from and I agree to some extent, the Burgess model has been with us for a long time, but his views certainly caused a bit of a stir in the world of geographical education, a response I am sure he was delighted with. I didn't enter the debate that resulted (Teaching Geography Spring 2020), but I am of the view that the model is still a decent starting place when looking at the growth and structure of towns and cities introducing, as it can, the concentric arrangement of city morphology and ideas of bid-rent and distance-decay. Moving on, the Sector and Multiple Nuclei models introduce other factors affecting land use such as preferred transport routes and I would usually follow this with a model of a typical British city, adapted to allow discussion of urban sprawl, commuter villages, green belts, pressure on the green belt, greenfield vs brownfield sites, regeneration, and modern industrial locations / out of town retail sites (geographyjohn.co.uk urban systems). This would set the scene for an investigation of 'real world' case studies.

Of course there are points for and against this view and we must certainly move with the times and adapt our views and thoughts on the teaching of geography.

This got me thinking about other 'old' approaches some of us 'ancient' geographers used in our teaching careers. When I first entered teaching in the '70's games and simulations were all the rage. I took this on board early on in my career as I could see the need to get students thinking about topics, studying the factors associated with locational decisions, discussing this with their peers, and actually making and justifying decisions. Latterly, I suppose, this reached its zenith in the use of decision making exercises (DME's) and I think GCSE examination papers based on this premise, like the ones set recently by AQA, were and are some of the best and most thought provoking offered by examination boards.

So what about the old iron and steel location game/simulation? Does it still have any relevance?

I suggest that it can and present my take on it here.

I think it offers so many ideas and concepts that we would still want our students to understand. A quick perusal of the 'facts to consider' I offer in each of the time periods shows how the following are introduced :-

CONCEALED COALFIELD	NIC'S
EXPOSED COALFIELD	NEE'S
RAW MATERIALS	NIDL
BLACK BAND IRON ORE	POST INDUSTRIAL
LOW GRADE ORE	POST MODERN
HIGH GRADE ORE	TERTIARY SECTOR
OPEN CAST MINING	SECONDARY SECTOR
INDUSTRIAL INERTIA	QUATERNARY SECTOR
FIXED CAPITAL	DE-INDUSTRIALISATION
SKILLED LABOUR	DISECONOMIES OF AGGLOMERATION
ECONOMIES OF SCALE	TRANSNATIONAL COMPANIES
LINKAGES	DEEP WATER PORTS / TERMINALS
SUBSIDIARY INDUSTRIES	INDUSTRIAL AGGLOMERATION

In the more recent period that I present it would even be possible to introduce ideas about Government Intervention in industrial location through a study of development area policies designed to prevent high and unsustainable unemployment rates in the old de-industrialising areas. Recent UK Governments have taken a hands off approach, however, by allowing global market forces to have a marked negative impact on our home steel production. They have facilitated the takeover of the industry by Indian and Chinese companies while wringing their metaphorical hands at the flooding of the market with cheap, state subsidised Chinese steel.

An answer to anyone who criticises the relevance of iron and steel in the industrial environment of a 'post-modern' economy, typical of many developed nations, would be to consider the wider global issues as a follow up to the earlier stages as suggested by the simulation.

I use a table/matrix scoring system for students to easily reach locational decisions. This is similar to the system I presented way back in the early '80's (Teaching Geography April 1983) in short decision making exercises concerning the location of power stations in the UK. Those exercises were designed for the early years of secondary education, but I hope this Iron and Steel exercise shows how the same approach can be adapted for older students.

The simulation I present here is based on the version offered in the Oxford Geography Project book one, the local framework. This groundbreaking series changed the scene of geographical education in the UK and quoting a

section from the Teacher's Guide shows that the rationale behind it is just as relevant today.

“The Project's aim is to encourage attitudes which are more sympathetic to the feelings and views of others, more concerned with the environment and quality of life, and more aware of conflicting views on issues but at the same time aware of the similarity of the problems which mankind faces in different parts of the world.”

The area of study for the simulation is based on South Yorkshire and North Lincolnshire, and if the map is turned the 'right way' up it is easy to see that site B is really Sheffield, C Rotherham, D Scunthorpe and E Immingham, (where steel works were never developed but important coal and ore terminals still exist). When the simulation was first presented by the OGP, British Steel were building a new Basic Oxygen Steelmaking plant, continuous casting facility and new rolling mills at Scunthorpe (Anchor works, opened by the Queen in 1974), when as the authors suggested a coastal site may have been more cost effective.

A more up to date global view introduces the idea of the 'not so' New International Division of Labour (NIDL) where secondary industries like steel are located in the Newly Industrialising Countries (NIC's) and Newly Emerging Economies (NEE's) whereas Transnational Company headquarters, research and development (the tertiary and quaternary sectors) are located in post industrial, Highly Industrialised Countries (HIC's). This combines with ideas on the de-industrialisation of the post modern countries as the diseconomies of agglomeration take their toll. All of this could be illustrated with the Clarke-Fisher model of changes in employment sectors over time through pre-industrial, industrial to post-industrial societies. Sorry, another model!

Steel goes against the normal global trend of transnational companies in that more of the top ten steel producers have head offices based in the emerging nations, whereas most of the top 10 transnational companies in all sectors of industry are based in the post-modern nations.

Going back to Dr Rawding's article, he went on to show expertly how historical factors affect the internal structure of Brighton. This steel simulation, based as it is on South Yorkshire and North Lincolnshire, also illustrates the historical background to industrial locations, and by grounding it in the real world it attempts to see locations in a global context.

The simulation can be used in a number of different ways in the classroom situation. It could be used as an individual student exercise, or as I used it, setting up small groups/teams of students to discuss the ideas, make and

justify the decisions, and report back to the whole class. If you want to go real 'old school' you can even set the simulation up as a whole class discussion/enquiry for each time period or even make it a full role play game.

Since most approaches will necessarily involve discussion by groups of students before they make carefully considered locational decisions the de-brief exercises can help to save time by consolidating knowledge and understanding, while taking the place of any note taking.

Anyone who read the article My Place : Scunthorpe (Teaching Geography Summer 2017) will understand my empathy for old industrial centres and their inhabitants, and my preoccupation with the iron and steel industry. This exercise and many other geography resources are available to view and easily download on the geography help and guidance site GEOGRAPHYJOHN (primarily for A level and GCSE students), which can be found at www.geographyjohn.co.uk .

Maybe not all the old geography teaching strategies or old geography teachers for that matter are ready for the 'bin' quite yet. The Burgess model, however, is approaching its hundredth birthday, so perhaps.....

References

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