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Ruggero Ferro* (ruggero.ferro@univr.it), Università' di Verona, Dipartimento di Informatica, Strada le Grazie 15, 37134 Verona, VR, Italy. *An analogy to help understanding Discovery, Insight and Invention in Mathematics.*

An analogy with the discovery of how life would be evolving in a town to where one is moving in may help us to understand what could be meant by discovery, insight and inventing in mathematics. The key common features of these two environments that I will try to point out range from 1) the realization that anything observed is contingent; to 2) the very reasonable hypothesis that anything that was build responded to some need, requirement, convenience or development; 3) what was previously constructed has some influence and bearing on what is done afterwards; 4) an understanding of the motivation of what was done and of the manner in which it was realized are needed to continue the construction; 5) the needs and requirements are continuously evolving and newly invented artifacts or improvements should be added to face them; to 6) not every invented addition meets the situation and the requirements with the same short range and long range convenience, thus a preventive evaluation is convenient according to criteria to be established. I will also try to underline the difference between the attitude proposed and the one claiming that in mathematics everything ought to be so, it can't be but so, due to an a-priori mental evidence, since this is the truth. (Received September 15, 2014)