

Extrait du Rhuthmos

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Rhythm as Form of Economic Process (part 2)

- Recherches

- Le rythme dans les sciences et les arts contemporains
- Économie et Marxisme - Nouvel article

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Rhuthmos

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Rhythm as Business Cycles (Mitchell - 1913)

In 1913, the very same year as Albert Aftalion, Wesley C. Mitchell (1874-1948) published his *Business Cycles*, which was to become canonical for economists in the United States and beyond.

His use of the term rhythm was far less frequent and sometimes less specific than Aftalion's. The first occurrence equated "rhythm" with "pace." According to Sombart, whose theory Mitchell summarized in his introductory chapter,

the modern crisis, then, following upon a period of prosperity, is substantially the result of the different rhythm of production in organic and inorganic realms. The organic industries dependent upon harvests cannot keep pace with the inorganic when the latter are being rapidly extended by heavy investments of capital. (*Business Cycles*, 1913, p. 16 - same use p. 19, 104)

But this marginal acceptance was maybe due to the translation from the German. Otherwise, Mitchell used "rhythm" or the adjective "rhythmical," in a way that was close to Aftalion's, to emphasize the periodicity of the variations in the economic activity. He mentioned "the rhythmical expansions and contractions" of business activity (p. 91), or its "rhythmical alternations of expansion and contraction" (p. 20, 223).

Finally, Chapter III, looking at the problem from the historical viewpoint, sketches the rhythmical expansions and contractions which business activity has undergone in recent years. Thus the actual courses followed by business cycles, the controlling factors in business activity, and the latest theories about the causes of prosperity, crisis, and depression are all before us. (*Business Cycles*, 1913, p. 91)

The repetition of "the business cycles" formed a rhythm.

In short, there is small room for doubt that saving, like most of the activities of economic life, is subject to the rhythm of business cycles, slowing down in depression, speeding up in prosperity. (*Business Cycles*, 1913, p. 389)

Finally Mitchell chose to entitle Part III of his work "The Rhythm of Business Activity."

THE FRAMEWORK OF PART III

The review of recent theories concerning business cycles in Part I of this book and the statistical study of the phenomena of recent cycles in Part II have a common purpose to provide suggestions and materials for attacking the problem of Part III. This problem is to account for the rhythmical alternations of prosperity, crisis, and depression which occur in the modern business world. (*Business Cycles*, 1913, p. 449)

Rhythm as Waves (Åkerman - 1928-1932)

Mitchell authoritative work helped to spread the use of rhythm in economics in America but also in Europe through Johan Åkerman (1896-1982), who had been student at Harvard a few years after Mitchell's lectures (1908-09) and knew quite well the work of the Harvard group of economists. I could not use his 1928 PhD Dissertation which is in Swedish but Åkerman drew from it a book which was translated into English and published in 1932. His use of the term rhythm was similar to Mitchell's. He mentioned many times "the rhythm of economic life."

That the process of production requires time is, then, the fundamental condition of the rhythm which economic life now follows. (*Economic Progress and Economic Crisis*, 1932, p. 29 - same phrase p. 31, 42, 108, 121, 165, 186)

But Åkerman appropriated and generalized a new comparison, whose emergence we already witnessed, as a matter of fact, in medicine at the end of the 19th century, and that was rapidly meeting with great success in economics. Probably due to the more frequent representation of the business cycles with charts instead of tables, but also to the need to differentiate between the short-range "cycles" and the long-range "movements," he equated "the general rhythmic movement" with a sequence of "cyclic waves."

The whole cyclic wave now became the subject of investigation. If, for example, the American statistics of economic cycles for the last four decades be studied, it appears that there are quite short waves of about three years' duration as well as longer waves of from seven to ten years, which include the short waves. [...] It is these cyclic waves that must be studied in their entirety if the crisis is to be capable of explanation, for the crisis is only a link in the general rhythmic movement, even though it be the most important and most interesting link. (*Economic Progress and Economic Crisis*, 1932, p. 46)

Anticipating Schumpeter, Åkerman described the conjunction of "short and long cyclic waves" (p. 69) the former being of three to four years, the latter of seven to ten years and "secular waves" (p. 72). He did not mention the Kuznets (15 to 25 years) nor the Kondratiev cycles (45 to 60 years). But "the waves build up the rhythm of economic life."

The cyclic waves and ultimately all the waves that build up the rhythm of economic life constitute the rising and falling substructure of the whole economic edifice. (*Economic Progress and Economic Crisis*, 1932, p. 165)

Rhythm as Organic-Biological Principle (Wagemann - 1928-1930)

Another European economist influenced by Mitchell, Persons and his colleagues in the Harvard group, was Ernst Friedrich Wagemann (1884-1956). However, in the Introduction of his *Economic Rhythm: A Theory of Business Cycles*, whose first edition was published in 1928 in German and translated into English in 1930, Wagemann presented a point of view openly opposed to American and Soviet reductive use of statistics, and a defense of an organic and vitalist perspective. According to an opposition that we already encountered in medicine and life sciences in the 18th and 19th centuries, which opposed mechanistic vs organic views, anatomical physiology vs semiology, measures and statistics vs signs and clinic, Wagemann stated that the economy was like a living body and should be treated as by "a doctor" who observed "signs" to "forecast the future course of the malady."

The process of investigation in Germany has developed an orientation which essentially distinguishes it from those of other countries. This difference may perhaps be best expressed by saying that while the American methods are those of engineering, and the Russian those of astronomy, the German institute represents the medical, or, better, the organic-biological point of view. It regards the national economic system as an organism the course of whose inner life can never be adequately interpreted by concentrating attention on a single point of its external surface. [...] The German Business Research Institute [*Institut für Konjunkturforschung* - founded in 1925] uses for the purpose of estimating business prospects in much the same way as a doctor uses the numerous methods of diagnosis known to medicine as a basis for the formation of his opinion of a case; in both cases, that is to say, the diagnosis is based on a complete study of individual signs symptoms, and it serves, in turn, as a basis for forecasting the future course of the malady. (*Economic Rhythm...*, 1930, p. 10, trans. D.H. Blelloch)

He pushed the comparison between society and body as far as claiming their identity. "The economic system is a living organism," he said.

The research work of the institute, like its observation of cyclical phenomena, is built up on the organic-biological principle on the basic assumption that the economic system is a living organism, which has in common with the living organisms in the zoological and botanical worlds not merely the intimate interconnection of all its separate parts, arising out of the internal interdependence of its various functions. It also shares with them a peculiarity which may be defined as consisting in the power to regulate its own movement. (*Economic Rhythm...*, 1930, p. 11, trans. D.H. Blelloch)

This rejection of mechanistic views of society had naturally consequences regarding its rhythms. Since it was a "living organism," the rhythms of the economic system or "economic fluctuations" were entirely endogenous and relatively independent from the "stimuli" of exterior influences which they "stood up to" and "transformed." They unfolded just as the movements of the heart when it reacted to dissimilar shocks, i.e. in a way prescribed by its own nature.

The independent organic character of economic fluctuations is, however, particularly noticeable in the manner in which they receive outside influences; they stand up to such influences and transform them, so that the latter's effect is merely that of stimuli. It is, therefore, not surprising that a political event, a war, or a natural catastrophe however greatly the effects of such interferences from outside may vary, both qualitatively and quantitatively communicates motion to the economic system in a manner which, perhaps, never varies, much as the heart reacts in an identical manner to quite dissimilar shocks, whether chemical or physical in character. (*Economic Rhythm...*, 1930, p. 12, trans. D.H. Belloch)

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Consequently, economic rhythms were not strictly regular as the beat of a machine but were oscillating "more or less" freely.

The starting, the direction, the duration, and the intensity of an organic series of movements thus possess the character of a more or less free rhythm, in contrast to the strictly regular beat of a machine. (*Economic Rhythm...*, 1930, p. 12, trans. D.H. Blelloch)

This, naturally, was meant to emphasize the necessity of taking into account every "intimate interconnections of all separate parts, arising out of the internal interdependence of its various functions" and to avoid the reduction of business cycles to mechanically recurring events. But it had also the disadvantage of naturalizing economy and consequently politics. The economic system, he claimed, had "the power to regulate its own movement."

[The economic system] also shares with [the living organisms] a peculiarity which may be defined as consisting in the power to regulate its own movement. This power has its immediate expression in an interplay of forces which is anything but mechanical, and which has in common with mechanical movement only the mere fact of movement association, the nature of the association being quite different. (*Economic Rhythm...*, 1930, p. 11-12, trans. D.H. Blelloch)

The economic system was "closed and compact" and "subject to its own laws." Therefore crises and business cycles were mere expressions of life on the social level.

1. All parts of the economic system are interconnected in an intimate functional union; the system thus formed is closed and compact and is subject to its own laws.
2. Influences from outside, whether they proceed from non-economic spheres or from foreign economic organisms, affect the system simply as stimuli, which cause to be set in operation the forces inherent in the economic organism under observation. (*Economic Rhythm...*, 1930, p. 13, trans. D.H. Blelloch)

Summarizing his ideas, Wagemann declared that the theory of business cycle should be based on "the organic-biological principle." He quoted Hans Driesch (1867-1841), who was well known, apart from his *Ordnungslehre - Theory of Order* (1923), for his reintroduction into biology of the Aristotelian concept of entelechy to indicate a life force which he conceived of as mind-like, non-spatial, intensive, and qualitative (*Philosophie des Organischen*, 2d ed. 1921).

The theory of business cycles which I represent is based on the organic-biological principle. [...] I propose until further notice to apply, in part, the system of reasoning proper to organic subjects to the study of business cycles. [See Driesch Hans, etc.]. (*Economic Rhythm...*, 1930, p. 13, trans. D.H. Blelloch)

As a result, "technical experts, enterprisers, lenders, governments," as Mitchell put it (*op. cit.*, p. 32 sq.), were less important to the economist than the system itself. This anti-liberal view prepared him to accept the paradoxical synthesis of Nature and Technique on which the Nazis based their new regime. And, as a matter of fact, as soon as 1933, Wagemann entered the NSDAP and was appointed director of the Deutsches Institut für Wirtschaftsforschung, whose head he remained until 1945.

Rhythm as Complex Undulation (Röpke and Schumpeter - 1936-1939)

The case of the German economist Wilhelm Röpke (1899-1966) is interesting in several respects. Röpke was first inspired by the Austrian School economists Ludwig von Mises (1881-1973) and Friedrich Hayek (1899-1992), two well-known supporters of classical liberalism, but, after WW2, he became one of the spiritual fathers of the Ordoliberal policy, which advocated free trade but with more central bank and state influence than what Austrian School economists suggested and which enabled the German "economic miracle" in the 1950s and 1960s. Röpke's opposition to the German Nazi regime led him in 1933 to emigrate to Istanbul, Turkey, where he taught until 1937, before accepting a position at the Graduate Institute of International and Development Studies in Geneva, where he lived until his death, in 1966.

During the thick of the Great Depression, the same year as Keynes came out with his *General Theory*, Röpke exposed a theory of business cycles, discussing simultaneously Mises', Hayek's, and Keynes' contributions, in a treatise entitled *Crises and Cycles* (1936).

As most of his contemporaries, Röpke used to use indifferently "rhythm," "fluctuations," "oscillations," "undulations," "vibrations," "waves," "variations," and "cycles," easily switching from one word to another as if they were meaning the same thing. I put in bold the remarkable rhythmological series that unfolds in the very first page of the chapter entitled "The Phenomena of Economic Fluctuations."

First of all we have the **undulation** with the shortest **vibration**, a **rhythm** to which we usually apply the somewhat restricted term "seasonal **fluctuations**." I say "restricted," because seasonal **fluctuations** do not merely include the actual climatic **rhythm** of the seasons, which leaves its mark in some way or other on almost every branch of production, particularly, of course, on agriculture, the definitely seasonal industries (building, inland navigation, industries producing agricultural implements, &c), and foreign trade. They also include every other possible **short-wave oscillation**, such as those **fluctuations** connected with fixed habits of payment and delivery, changes in fashion, and many more. We shall deal, then, in general with those economic **fluctuations** the amplitude of which does not exceed one year. Among these **short-wave variations** we may therefore also include those economic **fluctuations** which I have called "Anticipatory **Cycles**." (*Crises and Cycles*, 1936, p. 14)

However, when Röpke used rhythm in a more specific way, he defined it as the basic but complex form of the economic process: "The rhythm of economic life is a complex one, consisting in the main of three types of undulation."
"

In fact the first thing which must be pointed out is that the rhythm of economic life is a complex one, consisting in the main of three types of undulation which are distinguishable from one another by their amplitude, their intensity and their extensiveness. (*Crises and Cycles*, 1936, p. 14)

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Borrowing from the latest developments in economic science, Röpke clearly presented the superposition and interlacing of "long-wave," medium-range, and "short-wave" "rhythms."

Within this double rhythm of the short-wave seasonal fluctuation and the long-wave oscillation from prosperity to depression there vibrates the most important rhythm of economic life, *the rhythm of the general trade or business cycle*, which has sometimes been christened the "Juglar Cycle," in honor of the pioneer student of the trade or business cycle, the French economist Clément Juglar. (*Crises and Cycles*, 1936, p. 17)

This intermediate type of undulation, in turn, comprised, as usual, a certain number of successive "cycles."

The form of the cyclical fluctuation is furthermore distinguished by the fact that (as its name implies) it is *cyclical* and is subject to a characteristic rhythm. That is to say that each phase of the trade cycle is to be regarded as a definite though not always strictly diagnosable phase, which along with other phases goes to form an economic cycle. Each phase develops from the one before in a way which the theory of economic cycles has to explain until the initial phase is again reached and a new cycle begins. The phase of the depression (the fall) is followed by the phase of the boom (the rise), which sooner or later, with or without the acute change which we call a crisis, passes into the phase of a new depression which then makes way for a new economic cycle. (*Crises and Cycles*, 1936, p. 19)

It is worth noticing though that since the term "cycle" had been ascribed since Juglar to the 7 to 11 years undulation, Röpke did use it for the 3 to 5 years but preferred to designate the 45 to 60 years movement discovered and analyzed by Van Gelderen, De Wolff, Kondratiev and Simiand by the term "long wave" (p. 16, n. 5).

Appropriating an idea that had been around since Aftalion, Röpke explained that "the real centre and root of the cycle [was] to be found in this rhythmical expansion and contraction of investment." The swing from boom to depression reflected the fact that "economic development [did] not proceed evenly but in rhythmical jumps." In short, the development of capitalism proceeded "by jumps instead of moving in a smooth even rise."

It is generally agreed that the real center and root of the cycle is to be found in this rhythmical expansion and contraction of investment and the separate theories of the trade-cycle diverge from each other only so far as they give a different explanation of this rhythm. An increase of investment means the growth of the economic fabric, an increase and improvement in the productive equipment, and a step forward in economic development. So the swing from boom to depression reflects the fact that economic development does not proceed evenly but in rhythmical jumps whose force shakes for a time the equilibrium of the system so that contraction follows on the expansion. In other words, the cycle is to be considered as the typical form in which the growth of the capitalist economy takes place. In this light the crisis and depression appear as growing pains of the economic system from which we cannot escape so long as economic development proceeds by jumps instead of moving in a smooth even rise. (*Crises and Cycles*, 1936, p. 97-98)

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This uneven process of development could be explained by the succession of technological innovations.

The history of cycles and crises teaches us further that the jumpy increases of investment characterizing every boom are usually connected with some definite technical advance. In fact the beginnings of almost every modern technical achievement the railway, the iron and steel industry, the electrical industry, the chemical industry, and most recently the automobile industry can be traced back to a boom. (*Crises and Cycles*, 1936, p. 98)

Then Röpke duly cited all his predecessors who had put the emphasis on the driving force of technique and innovation: Marx, Tugan-Baranowski, Spiethoff, Cassel, Schumpeter, Aftalion, Bouniatian, Robertson and others (p. 98).

As we see, Röpke did not part from the general trend in economics. His vocabulary and the concepts that were behind it were shared by many scientists at the time. However, he differed from other economists, for instance Wagemann, in his deeper philosophical stand which possibly explained his political stand.

The chapter on "The Phenomena of Economic Fluctuations" started with a rather conventional statement, at the end of which he quoted Åkerman's 1928 book on the *Rhythmics of Economic Life*. Röpke claimed that both Nature and society were expressions of "life." Therefore, he said, it might be expected that "the fundamental law of rhythm" would "operate here."

Anyone who realizes that all life, whether regarded from the point of view of Nature or of society, is governed by a certain rhythm, will instinctively suppose that it cannot be otherwise in the economic sphere. That it is so need therefore cause no surprise. On the contrary, it would be surprising if the fundamental law of rhythm did not operate here [reference to Åkerman's book]. (*Crises and Cycles*, 1936, p. 14)

But a little further down, he draw a limit to this position. Even if statistics showed average range in time periods of 5 to 11years for Germany, and 6 to 9 years for England and the United States (p. 20), it was impossible, due to "marked irregularity," to speak of "real *periodicity* of the phases and crises in the sense of a uniformity of interval." Röpke explicitly rejected "cosmic" conceptions of business cycles he called "mythical." Although he believed in a kind of naturalistic view of economics, it was not possible to align it with the whole cosmic order.

Even if it is possible to some extent to determine the absolute range in the time periods within which the trade cycle has hitherto run its course, the marked irregularity of the interval makes it impossible to speak of a real *periodicity* of the phases and crises in the sense of a uniformity of interval. All present-day students of the trade cycle are unanimous in agreeing that such a periodicity does not exist, although in the teachings of the older students of crises and cycles it had assumed almost a mythical character, and had given the trade cycle something of the uncanny inexorability of a cosmic process: indeed, they actually associated it with cosmic processes, especially with the frequency of the maximum number of sunspots. (*Crises and Cycles*, 1936, p. 20)

Three years later, when Joseph Schumpeter (1883-1950) published *Business Cycles* (1939), he proposed a

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thorough synthesis of the whole economics literature on business cycles that had been written since the 1900s and entirely appropriated the extensive use of "rhythm" which had become common among economists, associating it with "cycles," "fluctuations," "variations," "oscillations," "waves," "wavelike oscillations," "vibrations" and the like.

All economic movements, which he called "cycles" whatever their periodicity, and "rhythms" when they were considered collectively, could be classified into three classes.

Hence, we decide now to content ourselves, for the rough purposes of this volume, with three classes of cycles, to which we shall refer simply as Kondratieffs, Juglars and Kitchins. (*Business Cycles*, 1939, vol. 1, p. 169)

As Röpke, he emphasized that the fact that these cycles were alien to any strict periodicity did not mean that they could not be qualified as such. On the contrary, he argued, there existed "a process which systematically produc[ed] alternating phases of prosperity and depression." "Both rhythm and cycles" did *really exist* even if they did not conform to an "arbitrary standards of regularity."

Fifth, there is nothing in the working of our model to point to periodicity in the cyclical process of economic evolution if that term is taken to mean a constant period. And there is no rhythm or cycle if we choose to define either of them with reference to periodicity in that sense. But both rhythm and cycles are present in a much more relevant sense. For there is a process which systematically produces alternating phases of prosperity and depression through the working of a definite mechanism set into motion by a definite "force" or "cause." All we can thus far say about the duration of the units of that process and of each of their two phases is that it will depend on the nature of the particular innovations that carry a given cycle, the actual structure of the industrial organism that responds to them, and the financial conditions and habits prevailing in the business community in each case. But that is enough and it seems entirely unjustified to deny the existence of a phenomenon because it fails to conform to certain arbitrary standards of regularity. (*Business Cycles*, 1939, vol. 1, p. 143)

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In conclusion, I would like first to emphasize that I did not study the previous works for their own sake. My point was not to discuss the various theories of business cycle or fluctuation respectively to each other, but only to show how they introduced the concept of rhythm into economics and the particular meaning they attributed to it.

Second, I should mention that I regret not having the opportunity to study Marxist economists more thoroughly. Since Marx very early theorized on recurring economic crises and cycles, and believed that they were announcing the final collapse of the capitalist system itself, they always have been part of Marxist economics. However, my first impression is that 20th century Marxists, at least before WW2, did not use the term rhythm but, due to the low number of texts I could collect, the question remains open and I hope that it will attract new research.

In the largest part of economics, our analysis has shown how close the new acceptance of the term was with that already common in life science and medicine. As physicians and life scientists, who used, since the 1880s, the concept for measuring and timing the activity of various physiological functions through series of beats or waves (see vol. 2, chap. 2), specialists of business cycles tended, after Aftalion and Mitchell, to generalize the concept of rhythm

to all economic functions in order to describe the complex dynamics that resulted from their interactions. Most of the time, as Juglar, Aftalion, Wagemann, Röpke, among many others, they compared the economic system to a living organism, and therefore the economic rhythms to the interconnected rhythms of their organs. Sometimes, according to a very old idea whose spread we observed many times since Antiquity, they went so far as claiming that the economic rhythms were determined by cosmic rhythms. In any case, this concept looked rather similar to its predecessor. It was used as synonymous with *cycles*, *fluctuations*, *oscillations*, *vibrations*, *undulations*, *waves*. Concurrently, the adjectives *rhythmic*, *periodic*, *cyclic*, *wave-like* were indifferently used. In short, in 20th century economics, the concept of rhythm remained in line with its Platonic definition as "order of movement" and largely participated in its spread.

However, it is worth noticing that there were some exceptions to this trend. Kondratiev, Simiand and Keynes were important economists who did not use the term rhythm to designate the business/trade cycle or any other economic cycle and it is no coincidence. With its naturalistic and sometimes plain metaphysical connotations, rhythm seems to have been part much more of the Liberal economics' vocabulary than of its Marxist, Durkheimian and Keynesian counterparts at least as I could figure out by looking into pre-WW2 economics. Since rhythm was a "natural" feature of the economic system, a part of its "life," it was not to be disturbed by state interventionism. Rhythms, under the guise of cycles and periodic crises, were in fact beneficial to the system by limiting the prices and making goods more affordable, reducing the excess of speculation, destroying the unfit enterprises and allowing the others to grow, triggering new research and technological innovations. It was emblematic of an economic paradigm that was to be entirely outmoded by the lagging depression and persistence of unemployment, and largely outperformed by the new policies that began to be applied at the end of the 1930s in the United States and after WW2 in the rest of the world except naturally the Communist bloc. But the second wave in the spread in the *ngram* statistics that we collected show that there probably was, after 1945, an appropriation of the term "rhythm" in Keynesian and Marxist economics, on theoretical and political bases that remain to be systematically studied .

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