

Kevin Lynch. What Time is This Place? MIT Press. 2001

3. Alive Now

To begin with historical preservation is traditional. It must seem evident to anyone that the serious issues of environment revolve about either the preservation of the past or the control of the future. But that is wrong. We preserve present signals of the past or control the present to satisfy our images of the future. Our images of past and future are present images, continuously re-created. The heart of our sense of time is the sense of "now." The spatial environment can strengthen and humanize this present image of time, and I contend that this function is one of its vital but most widely neglected roles. In a sense, then, I began at the wrong point and must begin again.

We have two kinds of evidence of the passage of time. One is rhythmic repetition—the heartbeat, breathing, sleeping and waking, hunger, the cycles of sun and moon, the seasons, waves, tides, clocks. The other is progressive and irreversible change—growth and decay, not recurrence but alteration. Men have made magical attempts to see the second phenomenon as a cosmic variant of the first, to pretend that change is also cyclical, to imagine that progressive time is a series of eternal, contrasting repetitions, each arising from the other. That magic warms the spirit with the sense that decline and dissolution are only appearances, that resurrection will follow. But the things we love do not in fact come back to us. Whatever our hopes, we know things change.

We are aware that the time inside is different from the time outside. Social time, which coordinates the actions of many people, may not match the internal rhythms of the body. The precise, abstract time of science and efficiency is certainly far removed from that inner

experience. Individuals caught between cycle and flow, between subjective and "objective" time, may try to suppress one or the other. They will schedule their lives very precisely and in great detail, or they will insulate themselves from objective time by keeping ostentatiously erratic hours, by willful disorganization, by stupor. They attend entertainments to forget time, or to "kill" it.

When a prisoner is condemned to die all clocks in the neighborhood of the death cell are stopped; as if the removal of the clock will cut off the flow of time and maroon the prisoner on a coast of timelessness where the moments, like breakers, rise and surge near but never touch the shore. But ... in the death cell time flows in as if all the cuckoo clocks grandfather clocks alarm clocks were striking simultaneously....

Men have always been concerned with however little or much they may care about the distant past or future. They are necessarily preoccupied with the practical problems of allocating time, of coordinating joint activities.

But beyond that they attempt to harmonize their perceptions of inner and outer time, to feel the fullness of life, and to still the anxiety of death. If this is the aim, then environment ought to support it. Environment is the clock we read to tell real time, to tell personal time.

Most adults in the "advanced" countries carry a watch. We depend on it, and it makes us uneasy. We eat and sleep and work as the watch may indicate, suppressing internal signals. When "time"

or schedule changes, we jump to follow. To be asked the hour is a common street question, for in a scheduled society objective time is critical information. We repeatedly check our mental sense of objective time with external clues and may be quite upset when inner time and external clues are contradictory. Is our watch wrong, or are we ill?

Journeys in modern cities are measured as time consumed and are accompanied by calculations of how late or early it is acceptable to be at journey's end. The city is a medium through which we make our way by spending time. We "waste" time or sometimes "gain" it. Refusing to carry a watch or to be bound by normal schedules is one way of declaring independence from conventional society.

Telling time is a simple technical problem, but unfortunately the clock is a rather obscure perceptual device. Its first widespread use in the thirteenth century was to ring the hours for clerical devotions. The clockface, which translated time into spatial alteration, came later. That form was dictated by its works, not by any principle of perception. Two (sometimes three) superimposed cycles give duplicate readings, according to angular displacement around a finely marked rim. Neither minutes nor hours nor half days correspond to the natural cycles of our bodies or the sun. And so teaching a child to read a clock is not a childish undertaking. When asked why a clock had two hands, a four-year-old replied, "God thought it would be a good idea."

Take another example. A traffic signal, which also measures time, is a visually sudden event, a featureless duration, whose abrupt transformation is tensely awaited. Other external time signals in normal use are equally unfitted to human perception. Electric bells and buzzers regulate the

scheduling of schools, factories, and other prisons, just as bells were used to order life in the monastery. These aural signals are sudden and intrusive: the listener has no warning of their coming, yet he must attend to them. But as an occasional event, the noon gun or siren and the evening peal-particularly when they do not constrain us to instant action-make a cheerful sound, simply reminding us of common time. And many unintentional sounds also tell time: the hum of traffic swells and wanes, birds greet the sun, a scheduled train passes. Someone remembers, as a child on a hill, hearing the city "sit down" to its noonday meal, when doors slammed and then everything was quiet.

Occasionally an observer wants precise readings. Digital docks display precise time, but they give us little sense of time structure or movement. Better, the ball topping the Greenwich tower rises slowly, then drops just at noon, to give exact observatory time to the ships in the river. Often, we want environmental signals that are nonintrusive, that take on identifiable forms at significant times of the day (noon, dosing hours) after giving us a progressive warning of the transformation to come and express the general passage of time by some gradual background change. The wasting sand in the hourglass is a vivid perceptual device, though of brief duration. The sun fits our prescription, particularly at its rising and setting, but sun angle is a mystery to most city people. Sundials clarify the ambiguities of sun position and can be dramatic at a large scale. The moon is even more vivid, since it changes its shape every night, but its cycle has less relevance for us and its hourly position requires sophisticated observation.

We might prefer to have time signals that, while giving us the information we need to make social coordination possible, also fit natural cycles and our inner sense of time and are clearly

suited to our ways of sensing things, Thus it is amusing to think of clocks that might go by five-minute leaps. Or ones that would pass more rapidly through the hour than the points of hourly transition or use other units of time that better approximate our normal spans of attention and effort than does the hour. For another reason than the one we have in mind, nineteenth century factory managers sometimes used clocks that moved faster during the lunch period. Perhaps we could devise other time signals: pointers moving along a linear scale, forms that change their orientation progressively and take on special characteristics at key times, lights that move like suns, We still enjoy the fabulous mechanical displays of the great public clocks of the late Middle Ages. Scented candles in Japanese temples emitted a different odor for each period of time. If the clear signaling of objective time is a modern requirement, fitting those signals to our rhythms and to our modes of perception is a more pervasive human one.

As we spend more of our lives in interior environments, we are deprived of many natural clues to the passage of day and season. Office and factory buildings, long corridors, and subways are timeless environments, like caves or the deep sea. Light, climate, and visible form are invariant. Without external oscillations to keep our rhythms in phase, our schedules may become erratic. Emerging, we enter with a shock into heat or darkness. As technical advances separate us from these natural clues, we may be forced to some ingenious simulations. The imitation window, with its curtains, painted view, and eternal yellow light, is merely depressing. A radio or television broadcast of external conditions is somewhat better. Light, heat, or sound, or even visible surfaces that change in congruence with the daily cycles may be acceptable signs of time. They could occur in corridors and lobbies, which would then become the "outside" of these

artificial worlds. Where separation from the normal rhythm is prolonged, these artificial settings may occasionally even be used to modify time, by changing its cycle or rate.

More direct and satisfying, where we can use them, are the arrangements that amplify or complement the underlying natural clues of time: surfaces that catch the light and change character as the sun angle shifts, plants that transform themselves with the seasons. Exterior light or heat may be complementary to or in contrast with natural change: the pool of warmth on an icy day, reddish lights that magnify the sunset, streetlights that dim with the passage of the night (or perhaps even change with phases of the moon?). One of the great values of the city park or garden is the way in which its plants and surfaces convey the passage of the year. Its leaves rustle, or its mantle of snow muffles sound. But the natural clues often fail us--a gray sky covers the sun, or an English spring may be too "slow" for one accustomed to more dramatic seasons. Nor are our clues solely natural ones--great cities have rhythms of sound, light, and visible activity which convey time and season to the experienced observer as vividly as does the sun. These clues might also be amplified and sharpened.

Reading the time of day or year is only part of the information we require. We want to coordinate our activity with the activities of others, and objective time is only a means for doing this. Knowing whether a store is open now or how long it will be before we meet someone or when a train leaves is the information we are after. We use printed schedules and appointment books and compare them with our watches, but visible clues are more reassuring: Is the train actually in the station now? Are people at the theater door? Is his car outside? Can you see the bus yet? A satisfying public environment not only will display the general time of day in some

humane and vivid way and give precise time on call but will also indicate the timing of publicly accessible activities: the opening of stores or restaurants, the presence of trains and audiences, the occurrence of the rush hour.

Even more than current timing, we are eager to know predicted timing: When will this restaurant close? Is the train coming soon? Will the parking lot be full when I arrive? When *will* the parade begin? Experienced city observers use subtle clues to extract this information, or depend on long experience, or refer to terse announcements. We are accustomed to nervous waiting and repeated questions, since the information must be had time and again. An environment that displayed those facts clearly and from a distance would be more comforting. Could bus stops tell us how many minutes away the bus is, or could highway signs display the predicted hours of congestion for that day?

Different observers in different situations have diverse needs for time information, some urgent, some casual. Tourists and strangers, for example, have pressing requirements for what may seem to others to be obvious information about the timing of activities. Just as we are beginning to study the locational information needed by different people, so should we be learning what they want to know about the timing of city events and how they use the perception of time in everyday life.

We might establish a public temporal (and spatial) model of the city to include short-term fluctuations such as the timing of events and the current loads on the communications systems, as well as long-term changes like past, present, and near future shifts in population or the

housing stock, in addition to the spatial locations of persons, activities, and facilities. This store of temporal and spatial information would respond to particular inquiries by presenting changing maps and models, slides, movies, graphic computer outputs, or tabulations of specific data. Schoolchildren might use it, as well as tourists, private researchers, official agencies, or people looking for a house, for a commercial site, for a job for entertainment, for medical aid, for some social service. This picture of "what's happening" in the city could be scanned at will or searched in depth at chosen points. I am suggesting a public war room, used for peaceful purposes. This is Patrick Geddes's old idea in modern form. A modest and temporary prototype has already been tried with great success in Boston.

Until recently environmental design was preoccupied with the permanent physical artifacts: buildings, roads, and land. But the human activities occurring among those artifacts are of equal or greater importance to the quality of a place. With this principle in mind, physical design has been broadened to become spatial design, planning the form of behavior and things in space. But if it is to deal with behavior, it must consider the temporal as well as the spatial pattern, and it becomes an art of managing the changing form of objects and the standing patterns of human activity in space and time together. Activities shift cyclically and progressively within their relatively unchanging spatial containers. The form of those containers cannot therefore "follow function" unless the use of a space is reduced to some single, invariant type of behavior. And allocating spaces to a single use (which seems to be an increasing tendency today) is usually inefficient and often socially isolating. The timing of an action or a physical intervention has as much to do with the good functioning and style of a place as does the location of that action or intervention. Generally, timing is still casually dealt with. Plans and proposals rarely refer to

desired or expected timing, except in reference to the peak loads on transportation channels.

Activity timing is fixed by custom. In principle it can be manipulated more freely than activity location, yet in fact it is so far less amenable to rational control. The individual, although he has some freedom of maneuver, is still meshed in an interlocking pattern of accepted timings—of hours for meals, for work, for travel, for play, for sleep. Problems of congestion and scarcity arise not solely because many want the same things but because they want the same things at the same time. The allocation of time becomes a problem as we begin to see that we may have some choice in the matter. Leisure is now possible for many, and customs of timing are more obvious and less absolute.

Time has become both more valuable and also more subject to reallocation. An art of choosing and distributing time has to be learned.

To begin with an obvious issue, environmental design must at least take careful account of when things are likely to happen in order to size and locate the spatial facilities properly. Thus there must be an accepted way of representing and quantifying activity sequences, so that a proposed environment can be seen and judged as a spatiotemporal whole.

Occasionally, we may also seek to control or influence the timing of events, as part of a planned proposal. The critical points are the beginnings and endings of coherent streams, or packages, of behavior: sleeping, eating together, playing a game, buying groceries. We need some guide as to what makes one pattern better in timing than another.

The most familiar case of the control of timing is the scheduling of the building process, in which the aim is to avoid bottlenecks, coordinate complementary operations, make efficient use of resources, and maintain a general sequence. But we also schedule the use of scarce space, such as a concert hall, or regulate the timing of public services, such as transit, and thus affect the timing of many other activities as a secondary consequence. We may set temporal limits to certain behavior, as by blue laws or closing hours. We may try to spread a load by lowering prices or raising attractiveness in off-hours, or by compelling a staggered use. Alternatively, in the case of a specialized activity, we peak its load more sharply at some particular time so as to generate sufficient demand (market days are an example). An agency may fix some key time for a special event: a holiday, a meeting, a celebration. And it is conceivable that an institution or public body might initiate a new timing pattern by introducing a service or activity at some unusual hour.

Some of these motives for interfering with timing, or at least for taking account of it, are well known. We may seek to fit load to capacity. We may try to fit complementary activities together in time or to separate those that conflict, as when we restrict truck loadings to the night hours.

We put actions into a proper sequence so that none is held up for want of an adequate antecedent-this is the meat of most scheduling studies. Or we may be concerned with allocation, with seeing that each activity has enough time, that it has the right kind of time for its purpose, and that an interrelated set of activities does not take up more than a given total extent of time (as a daily cycle or an allowable construction period). This will involve the adjustments of conflicts between competing time demands.

These motives of activity coordination, of load adjustment, and of time allocation have their counterparts in the manipulation of spatial patterns, of course.

Other motives now not so familiar may be just as important, however. As we learn more about the inherent rhythms of the body (sleep, excretion, eating, attention, mood), we may find that we should rearrange established timings to achieve a better fit: hours of work, study, and rest, the availability of meals, the pattern of journeys, and many other activities the environment must be designed and timed to support. Eventually, we may even decide to readjust certain artificial time divisions, for instance, hours and weeks. While many of these possibilities lie in a future in which we hope to have more certain knowledge, there are functions that may today be ripe for temporal modification. The timing of meals and of classes in school and the use of rotating shifts in business and industry come to mind. Temporal modifications will often have spatial consequences, as in the location of rest rooms.

In addition to adjusting time to conform to bodily rhythms, we can interfere with timing in order to increase choice and diversity and thus to allow individuals to package their days in ways better suited to their constitutions or their situations. Basic services and facilities could be made more widely available in time as well as in space. Fewer restrictions could be put on the temporal location of activity. Shops need not be forced to close on Sundays, or pubs in the afternoon. Time patterns rooted in history survive their functions, like vermiform appendixes. Attempts can be made to loosen the hold of custom or the tyranny of a tight intermeshing of behavior. Most

schools, for example, still insist that everyone learn the same material at the same pace in the same block of time. A few have demonstrated that this absolutism is unnecessary. Some office work can now occur at unconventional times, and an occasional business enterprise will allow individual workers to set the hours to which they wish to be held. Thus one of the satisfactions enjoyed by artists and independent craftsmen can be transferred into large commercial firms.

Finally, it is conceivable that one might try to manipulate activity timing to enhance the sequential character of a place or of a person's day. Summer camps, for example, began the day with calisthenics and end it with singing. A desirable character, in this sense, implies that a day or a locality should have a perceptible rhythm of events, memorable peaks and moments of calm, behavior sometimes synchronized, sometimes free and easy. This is a peculiar, interesting, and rather dangerous idea. The possible characteristics of some sequences will be the subject of discussion to come but will be treated with caution. We should be fearful of ordering the timing of a person's day directly, except where that ordering is unavoidable for necessary economic or social functions or contains a sufficient number of alternatives. Imposed timing—the curfew, for example — is a technique of domination. The timing of behavior has always been a strong expression of group or personal style. There are morning people and evening people, those who linger over a late social dinner and those who eat alone whenever hungry. Some move easily through the day, coordinating with others only when necessary.

Others are harried-bound to iron schedules and yet never on time. The questions are not only how people actually organize their time but also how they would prefer to organize it and how they would respond to new time organizations they have never tried before. Schools are

experimenting with flexible schedules in which pupils work at tasks according to the demands of the work itself and not within conventional blocks of time. Individuals should be given both the opportunity and the knowledge to create their own time order. They should be encouraged to learn the time structure of their own bodies, and to search for a timing of behavior that is in tune with it.

Increasing the range of timing choices is valuable but not by itself sufficient. A good pattern is one that is stable and coherent, that is shared by others, and that fits external rhythms and requirements and also the internal structure of the individual. It is not a casual creation. Ideally, perhaps, within the limits of necessary large-scale social coordination, timing patterns would be the product of the trials and experiences of small groups who are of like mind and in similar circumstances. The flair for timing one's actions with grace and skill may be taught as well as enjoyed. At any rate, we could illustrate some of the possibilities in addition to allowing a greater choice.

We could make a fantasy about a world in which external time were paced to fit subjective time, as it is in wishes, memory, and dreams-where events speeded up or slowed down as desired. Moments of pleasure might be stretched out, pain raced through, sleep brief and waking long. But as a result, social coordination would collapse. The individual would be stripped of temporal clues, except those which reflected his own internal feelings. Personal worlds could race to a blowup or run down to stasis. Studies of behavior in the isolation of caves and the Antarctic have revealed the instabilities, distortions, and difficulties of an externally timeless environment. Our pleasant fantasy becomes a nightmare. We do manipulate time when we indulge in reverie. But

the external social world must be attended to recurrently and must have a stable time structure. Moreover, our society is a highly programmed one. The clock is ubiquitous; sometimes even minimum speeds are fixed. One can think of several dimensions along which time structure can vary:

- (a) its grain, or the size and precision the chunks into which it is divided;
- (b) its period, or the length of time within which events recur;
- (c) its amplitude, or the degree of change within a cycle;
- (d) its rate, or the speed with which changes occur;
- (e) its synchronization, or the degree to which the cycles and changes are in phase, or begin and end together;
- (f) its regularity, or the degree to which the preceding characteristics themselves remain stable and unchanging, and
- (g) (in the human case and more subjectively) its orientation, or the degree to which attention is focused on past, present, or future.

We are accustomed to thinking of these dimensions as being strictly bound together. We feel that a fine-grained, short-period, ample, rapid, synchronized, regular, near-future-oriented time structure is a "natural" (and perhaps unpleasant but inevitable) combination. Yet other structures are possible and may have advantages. For example, a coarse grained yet synchronized time framework might be workable. Might a diversity of time structures better fit individual needs and the requirements of different kinds of behavior?

Like tampering with the twenty-four-hour cycle, so firmly bound to the nature of our earth and our bodies, a manipulation of rate is likely to be a most difficult change of time structure. If any locality or group has a rate of change which is consistently slower or faster than its surroundings, it will be isolated or overwhelmed. Whether we have the power to manipulate rates of change consistently throughout a society is very doubtful nor are we yet wise enough to identify optimum rates. Decelerated areas might survive for a limited period and might be appropriate refuges for those bewildered by the normal pace of change. Certain religious communities, old residential areas, or "backward regions" have this characteristic. They are admirable if membership is voluntary (but it often is not) and if there is a mechanism for an eventual catching up.

As one possible suggestion, some areas might be systematically retarded—that is, they would change at the same general rate as the surrounding society but would consider whether to accept some changes only after a standard period of delay. Introducing the automobile twenty years late, for example, and then only in some modified way as suggested by experience, might have been a canny policy. A calmer pace would be the result of this comparative lateness, and the possibility of avoiding changes that had proved to be undesirable would be a solid advantage. Pace could also be retarded by damping the rate of transmission of information: substituting the weekly for the daily newspaper, or mail for the telephone.

The opposite possibility is a future-oriented region, always experimenting with foreseeable changes before they generally take hold, thus speeding the rate of change by trying many new articles or behaviors while constantly discarding those that

Do not prove viable. Similarly, the circulation of information can be stepped up. Indeed, the worlds of fashion, or of center-city high society, have some of this character.

Both these states would be artificial ones, maintained at a cost. They could not be completely consistent. A retarded area, for example, could not easily exclude a newly proved cancer preventive.

Yet, within reason, if members were voluntary participants and willing to bear the cost, certain manipulations of the change rate might be welcome. There could also be special environments for people who are present-oriented by temperament: microworlds characterized by direct decisions, frequent holidays and events, mobility, short preparations and quick payoffs, opportunities to become competent rapidly, happenings and spontaneous gatherings, reversals of time structure, brief contracts and affiliations, chance meetings and opportunities, a fluid social pattern. Less would be collected or remembered there, and the spontaneous grace of free, irregular group time could be enjoyed. There are advantages in close but temporary interpersonal relations. A chance-met stranger will tell someone the story of his life. Commitment and intimacy need not depend entirely on the duration of a relationship.

These are the characteristics of holiday resorts, "crash pads," and "instant communities"-the locales for existential acts. But unless temporary, these features must also be accompanied by some movement toward a new, stable pattern, some encouragement to enlarge the psychological present, to connect it with past and future. Such features are prominent in the experimental lifestyles of young people today. Dropping out is a flight from rigid urban time patterns; turning on is a search for an (illusory) timelessness and a deep immersion in present rhythms.

Some experiments with shifts in period or cycle could perhaps be made. For biological and climatic reasons, we are unlikely to escape the dominant diurnal and annual rhythms, but a slower or more rapid but still congruent cycling is quite possible within those rhythms. There is some evidence of a natural ninety-minute rhythm of arousal and attention, for example. The rhythm of the week is completely artificial, with a historical but now irrelevant religious and economic basis. Other cultures have used quite different schedules. The Romans counted the days backward from the ides and nones of the month, toward which time seemed to stream forward. This view implied a greater temporal extension than in our system and a clearer focus on key points. The Luvale people in Zambia use an eleven day moving period: today plus four days backward and six days forward.

The modification of our week would be difficult simply because of the great number of activities coordinated with it, yet it would be interesting to know if a different cycle of work and rest, or even a noncyclical system, would be preferable for some people. The four-day work week is now appearing in the United States. Experiments in time organization are being made in the Synanon community (the experimental group that began with drug withdrawal), for another example. In one of these experiments, a group is divided in half. One half works intensively, fourteen hours a day, to support the other half, the members of which are free to think and dream. After a period the assignments are reversed. Learning and production may be more efficient if pursued in bursts longer or shorter than the customary ones although rapid changes of schedule may exert stress on the body. Regularity may have a biological basis.

Although time packaging may need to be fine in some areas of behavior, it can be coarse and indistinct in others. It was not so long ago that time was reckoned only to the nearest hour. We often use a coarse grain on social occasions, while pretending to refer to finely divided clock time and feeling guilty for the deception. Indeed, different activities are organized into periods in which time has different values and is constructed differently. In team sports, for example; there is the twenty-minute hockey period, the fifteen-minute football quarter, the twelve-minute basketball period, and the baseball inning of no set length. The pace of the whole, the cycles within it, the variations in intensity of action, all are peculiar to the specific game. On the borders of all time packages there are neutral zones, small bonuses, in which time can be used luxuriously without "wasting" it. I argue here for a looser grain of time, highlighted by occasional moments of fine, sharp division.

The most common stress is synchronization, coordinating our time with another person's time, except in those joyful moments when we truly work together. Maurice O'Sullivan, writing of his boyhood off the Irish coast, tells of his first trip to Dublin and of how the scheduling of the trains terrified him. Synchronization on his own island had been simple and coarse, signaled by the changes of daylight and made possible by patient waiting. Synchronization often weighs on us. Acting together may be a pleasant thing: in dances, in ceremonies, in music, in rhythmic physical labor. But when action is prolonged and not reinforced by direct rhythms or by the Sight of others acting in concert, the imposition of outside time is oppressive. Eating, rising, resting at the same hour may suit neither our enduring nor our immediate preferences. Even our vacations are temporally ruled, and one of the pleasures of a late night party or a very early rising is in the sense of escape from time. One advantage of a life devoted to individual artistic creation, or of

being a gypsy, is that it allows a "free-running" schedule. Yet social coordination depends on synchronization, and without some determinate timing individual behavior is disoriented as well.

In large cities the volume of services and facilities required allows them to accommodate certain differences in timing, or even to be available on a twenty-four-hour basis, taking advantage of statistical regularities to predict the loads. For each time preference there exists a sufficiently large group with whom one can synchronize one's own behavior. A collateral advantage is that peak loadings are smoothed out and facilities more efficiently used. Urban designers often propose localized twenty-four-hour environments, active at all times. This objective may be less important than seeing that specific activities are always somewhere available. Morning and evening people can then coexist, and each can leap the fence into another time pattern if he desires.

The medieval city was the polar opposite: in Florence it was assumed that only criminals were out at night, and nocturnal pedestrians were arrested. In our own day, decreasing street safety again restricts timing freedom. People feel secure outdoors only at conventional hours, when they are convoyed by the presence of others. The twenty-four hour restaurant and the street life of the university neighborhoods of the thirties may be fading again into medieval night.

Attempts to formalize multiple scheduling have not been very successful. A rotating five-day week was instituted in the early years of the Soviet Union to promote efficient use of physical resources, but it was soon abandoned. The aim was efficiency and not freedom: individuals were fixed into weekly cycles that were abstractly out of phase but not qualitatively different, yet they had to suffer all the disadvantages of a lack of synchronism with others. In the United States

some staggering of work-leaving times occurs spontaneously, as people adjust to commuter congestion, but measures to impose staggered hours are met with resistance. Night production shifts and special night or holiday services are now common. Large shops are opening on Sunday. In some cases these changes make a welcome fit with the time preferences of the worker as well as the person