The Window Condition

for Sadra Tehrani

Figure 1. Ludwig von Bertalanffy, who could be considered as a pioneer in *ersatz/ansatz* methodology but also a reason why the term *ansatz* came to be assimilated into the more generic expression of "systems theory." A system is primarily *ansatz*, a lucky guess, or *ersatz,* a "shot in the dark," in that formal relationships must be specified before the system is tested against varying environmental conditions. The system maintains order in the face of variations, but then increasing dissonant results force changes to the system's structure. See "Systembiologie" in *Wikipedia, Die freie enzyklopädie.*

[Tehrani's Proposal: To examine categorial variations on the theme of "looking out of a window" onto an urban scene represented in the classic profile of the "skyline."]

A subject seated in an "internal" space looking at through a transparent framed (usually rectangular) opening at a city usually represented in the customary profile known as the "skyline" … this seems to state in gesture the basic situation of subjectivity. The viewer is usually seated, motion is constrained; and the viewer could also be taking a nap. The window seems to be devoted to its function of keeping the air out but light in (or darkness, if the viewing takes place at night), but in general the window signifies an exclusively visual function under the condition of a fixed point of view.

All of this sounds like an experiment, so I think that the er*satz/ansatz* ("lucky guess") methodology should be brought in for two reasons: (1) it allows for any and all variations on the theme, using any research "paradigm" that comes to mind and satisfying those who suggest this or that mode of inquiry; (2) its neutrality, its "doesn't-care" attitude, allows a maximum of general and reflective considerations early in the investigation, when variety is useful.[1] Also, the *ersatz/ansatz* itself brings in the idea of methodology itself not as a tool in use but an attitude to be examined, as if by an observer seated in a chair, looking out through a window. Just as the observer watches passively a scene where things "just happen," the *ersatz/ansatz* method takes the good with the bad, the unimportant with the important … treats everything at the same level because its "window" is comparatively large and open to anything. One could almost say that the seated window-gazer is the same as any experimenter employing the *ersatz/ansatz* method.

ersatz to ansatz definition

The *ersatz-to-ansatz* or simply "*ansatz*" methodology is employed by mathematicians/statisticians when they confront a difficult problem that has resisted a standard analysis. The technique is starkly simple. A theorem is devised without any claim to validity or expectation of success. When it is "run through the data," results are examined simply to see what has happened. Cases are sorted not in terms of successes and failures but rather to spot interesting and unexpected conditions. The most interesting conditions are

[1] It is difficult to find documentation on the *ersatz/ansatz* or, more simply, *ansatz* method. See "Antatz," *Wikepedia.* Online text at https://en.wikipedia.org/wiki/Ansatz. As in the case of systems theory, *ansatz* is assimilated to the procedure of structuring whole models to test against imposed conditions, and the term *systems theory* eclipses the more specific use of *ansatz*, which is normally retained in statistics and mathematics.

those that defy explanation because they have "gotten lucky" and, although the theorem has no expectation of being successful, nonetheless produced a very good result.

In other words, "bad results" are expected, good results are not. There is every reason to expect a bad result from a theorem that has little or nothing to do with the data it analyzes, so when good results occur, the question is on a different level: where did the success *come from*.

The *ersatz/ansatz* method is not different from the standard "scientific method" in its use of a null hypothesis. The null hypothesis is a conjecture made to be disproved: X = ~T. Note that disproval (to say that the hypothesis is "not true" is not the same as saying that it is false. There are other options, such as "neither true nor false," or (more complexly) "not true under *these circumstances* but nonetheless *possibly true* in some other context. While the null hypothesis is standard in science, it is less useful when the "Boolean logic" conditions of either/or (everything considered as being true or false) are not relevant. Such is the case when a future or past is relevant (i. e. the basis of subjectivity as conditioned by memory or anticipation) and *possibility* or *contingency* plays a real and material role. While Boolean logic specifies a strict either/or, its own status is less certain. A "pre-Boolean" logic may actually be required by Boolean logic itself, and Boolean logic can be seen to produce non-Boolean results. The relation of Boolean logic to non-Boolean options is not itself Boolean, that is we don't have to make a choice. It's enough to state that the "either/or" required by the null hypothesis is surrounded by conditions that are not either/or, and that the either/or may lead to results or conclusions where the either/or itself is refuted. This doesn't reject the Boolean aspect of the null hypothesis. It just shows that the *ersatz/ansatz* approach is more representative in allowing for these pre- and post- considerations to come into play, especially at points when research cannot attain the high standard of the either/or.

The *ersatz/ansatz* approach is valuable for its inclusiveness and appropriateness to early stages of research where excluding data would be disastrous. It is equivalent to the idea of "examining one's preconceptions" or "avoiding prejudice." And, since it comes from mathematicians, physicists, and statisticians, one can hardly say that it's "un-scientific." It's a standard methodology whose usefulness has been established.

So, how is it done? An *ersatz/ansatz* conjecture is any "start-up idea" that works like a framework for subsequent investigation. In this case, the situation of a seated subject gazing out of a window at an urban scene presenting a profile in the form of a "skyline" is more than sufficient. To consider this as an *ersatz/ansatz* experiment, the next step is to consider how "standard paradigms" might address this situation. How would they describe it? What methods would they use to analyze it? What *kinds of data* would result? To what *uses* would they apply the data? Who would benefit from such applications? How would results be valued (i. e. do researchers act like consultants for someone producing consumable products)? Is there any political or social value attached to results?

Any of these questions could embroil the researcher in years of tedious considerations, so there must be some strategy to characterize and abbreviate these options while developing a new *ersatz* method in contrast. The next scientific principle embodied by the *ersatz/ansatz* approach must be brought to bear. Research must be "disinterested." This runs counter to the prevailing attitude that university professionals exist solely to benefit private and/or public interests in relation to problems or opportunities. The case for this is generally made in relation to "public goods" that are held to be axiomatic and, hence, undebatable, such as "addressing global warming," "urban crowding," "repressive hegemonic political conditions,"

"gender inequality," or "autonomy of minority populations." In all of these cases, the conclusion has been pre-determined and research is sought simply to justify the conclusion. While such research is grounded in the need to address sometimes immanent threats or injustices, it is not science. Scientific research, to be scientific, cannot anticipate or "hope for" any specific outcome. Its integrity depends on its openness to whatever results it may find, without tilting the scales in any one direction. The *ersatz/ansatz* approach cannot guarantee this objectivity, but it can hold open the possibility that different paradigms will be suspended long enough to see how their presuppositions might influence certain outcomes and repress others.

The *ersatz/ansatz* approach is a kind of "theory about theories" in its early stages. By taking the null hypothesis and disinterest requirement seriously, it is both subjective and objective. As objective, it rejects any attempt to fix data in advance by limiting the framing conditions to one particular set of expectations. An example would be cognitive psychology's idea of the human subject as exclusively pleasure-seeking and threat-avoiding. This leads almost immediately to a pre-conditioned understanding of what pleasure and threat are, and how they are related to human reactions. In short, nearly all the interesting data is thrown away if we consider that the subject's relation to pain and pleasure is fundamentally ambiguous, that one is often replaced or symbolized by the other. "Being objective" means that, in this case, cognitive psychology has already leaned too far toward subjectivity by its own preference for a "pleasureful" simplicity over a "painful" need to examine contradictory conditions. It lives within a Boolean either/or paradise, a simplified experimental situation that will not create paradox. The *ersatz/ansatz* approach picks this up immediately but doesn't automatically condemn cognitive psychology, it simply observes that cognitive psychology has, in taking the more pleasant option, proven that an opposite approach would be more scientific.

This quick refutation of cognitive psychology to exemplify the *ersatz/ansatz* approach's "meta-theoretical" stance suggests that different theories need to be seen in the same way the seated viewer looks out at the city, where the distant view is collectivized as a "profile," a "skyline." So, the window model has already provided a basis for its own methodology, before any experiment has begun or any data has been collected. The first payoff of the *ersatz/ansatz* approach has been to show that the seated viewer is more of a meta-paradigm, able to evaluate other possible approaches to the seated viewer situation, than a situation to be analyzed by any one of the possible approaches.

At the same time, the *ersatz/ansatz* approach has been faithful to the null hypothesis and disinterest ideals; it has been consistently "scientific." Now it's time to consider a third component of the "scientific method." Anyone researching contemporary definitions of the scientific method will be horrified to see that the principle of disinterest has been converted to an ideological aim: to be useful. This was never a part of the scientific method. It has been added to make the method into an "iterative procedure" where, if the "right results are not found," you just keep trying until you "get it right." Scientific method is based on the mathematics of randomized sampling. If a data set is "random," then there is no justification for saying that there is any "central tendency," i. e. no factor that can be considered to be a cause. Numerically, each data point as a vector (relation of different dimensions defining the array of points), must be compared to a random distribution that is equivalent to a "null hypothesis" — points that are not determined by any force or set of forces. Central tendency is "linearized" when we streamline the data along x/y axes and use the analogy of a bell-curve to demonstrate how a single force may group data points in a predictable

statistical way. "Sigma values" predict how many cases will fall within a primary group, a secondary and then a tertiary group. This numerical comparison is just an idea about what the null hypothesis involves. Random means that there is no "reason" or "force" that is affecting a data set. A null hypothesis states that there *is* a force, and we set out to *disprove it* by showing that the same effects could be explained as happening completely by chance.

Being interested in a particular kind of outcome amounts to adjusting the frame that admits/excludes data points so that a central tendency will be "automatically" present. You can see from the start that this is unscientific and, in basic respects, dishonest. Although it sound good to be against bad things such as global warming or discrimination and for good things such as nutrition, equality, and urban orderliness, these are "pre-defined conditions" that we no longer test. They are accepted goods or evils that, in not being further questioned, no longer have *scientific status*.

For research to be useful is not a scientific question. It is "post-scientific," something that "might be nice" as long as the scientist-as-scientist is cleared from any interest in this outcome. It would be like showing that the officials conducting the balloting of elected officials had "wanted someone to win all along." Even after the election, the officials must demonstrate that they had no such interests! They would retroactively come under suspicion, and their procedures would have to be "impounded" until their reputations could be cleared. The *ersatz/ansatz* approach tries to maintain its independence as long as possible. At some point however there will be a tilt in favor of a more specific method or viewpoint. It will be impossible at this point to avoid "justification" arguments to support the procedure. This is fine, as long as the researcher has held off as long as possible before reaching this point. Justification then involves demonstrating how, once a certain tradition of inquiry has been "locked in," the researcher has continually questioned this tradition and held it at some skeptical arm's length, not accepting everything it prescribes. In masters-level research, standard components from accepted approaches are applied to new data and tested, and the aim is to find inconsistencies, anomalies, or even simple failures to question the standard approach. At the PhD level, more paradigms are considered and the analysis of failure is more comprehensive. "New knowledge" results as the simultaneous combination of (1) the rejection of most if not all existing paradigms with (2) adjustments to the main definitions of what research is. In other words, while masters-level research may conclude with a critique, PhD research must involve commentary about methods as well as results.

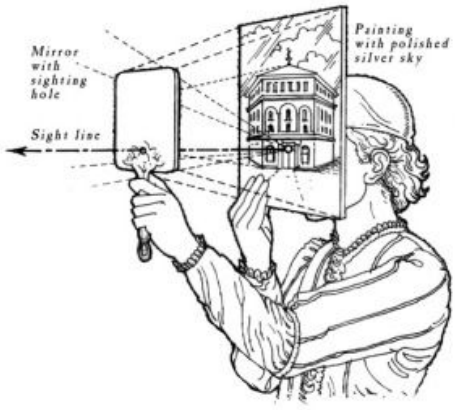

Figure 2. Fillippo Brunelleschi's device to illustrate Alberti's idea of representation as a "cut" into the cone of vision. The double mirror effectively flattened the depth of the scene to vectors "regulated" by the point of view and vanishing point.

the window and the seated viewer and the urban skyline

The *ersatz* conjecture has already been made. It is a "positional" relationship between three elements, a seated viewer, various urban scenery that has usually been represented as having a "skyline," and a window or window-like element separating the "interior" of the seated subject from the "exterior" of urban space. Historically, this is nearest to Alberti's metaphor of

Figure 3. Skylines are considered to be "signature" of urban identity and, thus, compress the dimensionality of the distant scene into a profile/edge that forms a definitive figure-ground relationship. Does the window have a natural affinity to the skyline and, if so, what does this tell us about the window's pretensions to transparency?

representation as a "window" on to reality, where the window occupies the position of the picture plane that cuts the cone of vision of a single point simplifying the binocular vision of the fixed viewer. The monocular status of the view is emphasized by the choice of a *distant* view over a closer scene where seeing around corners or the perception of depth would be significant. This is compounded by the frequent characterization of the scene in the distance by a profile, the "skyline," where the edge is made into a kind of "personality" of the city. Monocularity is one of the concepts that is now an element open to scrutiny, because it is such a central feature of the initial conjecture.

Transparency is the second most obvious feature. The subject looks out of the window, and several questions arise. Does the viewer simultaneously feel that he/she is being watched by the view itself? Is the view perfectly transparent, or do extraneous events, such as shadows on the glass or curtains at the edge of the glass, have any effects at all? Does the subject imagine that the window is a kind of cinema or television screen, or the substitute for a theatrical stage, with the view beyond the window working like some kind of drama? Subjects being subjects, analogies and comparisons are all relevant, since the point of looking out of the window is to allow such comparisons to happen as the mind "wanders." Transparency involves many such issues. It is not a neutral term, but it *pretends* to be neutral — such is the essence of the idea of transparency. Pretending to be something that is not entirely true is a part of what makes windows windows. Does the window reflect the inside scene at night and seem to project it across the exterior landscape? Does a bird occasionally see the sky reflected in the window and break its neck trying to fly into that sky? (The opening lines of Vladimir Nabokov's poem in the novel *Pale Fire* consider this situation.) Such questions form a "set of considerations" that should be used to gauge all of the paradigms that are examined in the early stages of the *ersatz/ansatz* investigation. A kind of score-card should be maintained and presented as a part of the thesis inquiry's results.

day-to-day operations

Deadlines, writing requirements, scheduled presentations, and the like should not be regarded as "technical details" but should be used as a part of the *ersatz/ansatz* approach's randomizing technique. "Does the length of a report have an effect on its content?" is analogous to the question "Does the window have an effect on what the viewer thinks the view is about?" Rejecting technical requirements as "simply technical" is the same as rejecting the window-watcher's subjective impressions of what he/she sees. You can't accept one and reject the other. The physical act of doing research must derive its disciplinary procedures from its own object of study, the method must be involved closely with what the method tries to uncover. The argument for this is a kind of inverse: it would be impossible to separate the method from

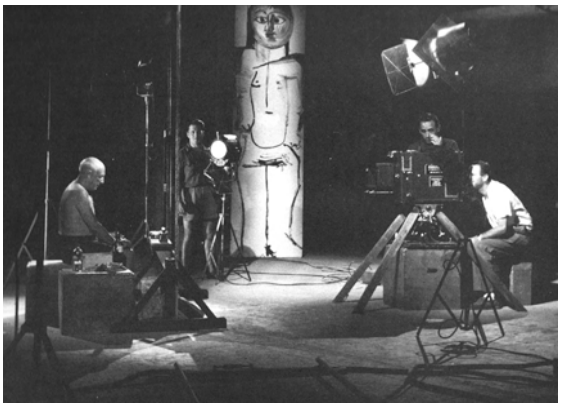

Figure 4. Henri-George Clouzot's filming of Picasso at work used special paints and a translucent painting surface that was filmed from the opposite side. Picasso's working method was revealed to be one of continual adjustments: erasures, replacements, additions, modifications, re-framings, and new figural illusions. Clouzot's *ersatz* method revealed that Picasso was even better at *ersatz* than Clouzot.

the "content" anyway, so to be scientific involves being aware of the relationship that is a given.

In the beginning of a project, discipline is critical, since discipline is "method carried to extreme" so that accidents, discoveries, and surprises can be maximized. The net has to be fine-meshed enough to catch even the small fish. The tighter the mesh (the more rigorous the discipline) the more *ersatz* will bring forth previously unnoticed phenomena. The chance of getting lucky, *ansatz*, increases. Discipline is also objective in a radical sense. It is fixing the length of a proposal to 2222 words, no more no less. There can be no obvious reason for this arbitrary choice, *therefore* anything that results from subtracting or adding words or ideas to reach this pre-determined goal *should* have no value, and, conversely, *any value that unexpectedly* arises in the editing process is significant and interesting. Why and how could anything of value come out of following the specifications for the length of a report? That is an interesting question that would not arise if there were no specific word limit.

For the same reasons, regarding the technical production as a part of the *ersatz* experiment has the effect of keeping the investigator's mind open through a kind of hypnosis. In the technique of hypnosis, attention is focused without the subject's awareness. This focus then blocks the subject's attempt to order contextual phenomena in terms of anticipations and confirmations. Once blocked, the subject is *suggestible* because there are no structured expectations of how things should be. The researcher's ideal is that of *perfect suggestibility* — any phenomenon, any theory, any explanation that *works* is admissible. This is scientific, and any other attitude that falls short of perfect suggestibility's openness to what may be true is immediately not scientific. So, a "day-to-day" study habit works as a hypnotic means of keeping one's mind open to the experiment as experience where the researcher no longer "looks" but increasingly "finds." (This was Picasso's explanation of his genius, "I don't look; I find.")

Suggestion: always write as if the completed text was to be turned in as final work. Any text should be rigorously formatted and include complete documentation in the form of footnotes and bibliography. Although indexing would be the most effective way to discipline a writing project, extreme labor is involved, and one can be forgiven for omitting it. In sketching and making notes, structure a notebook so that continual review takes place with the addition of any new items. Schedule specific times of day to work, and keep to the schedule as strictly as possible. *Document* your own obedience to your "arbitrary" disciplinary rules. Your state of mind ("hypnotically open") is key to both the scientific rigor of your research as well as to how research will teach you what you did not expect to learn. Without this release (or, better, banishment) of expectations, you will only get a reflection of initial prejudices. Justifying initial ideas has zero educational value. The researcher only *looks like* a researcher, which is fraudulent. There are many frauds in the university.

In conclusion, the *ersatz/ansatz* method is not an exception to the "scientific method." It is possibly the only way to use a disciplined approach to make sure the scientific method remains free from preconceptions that will tilt the results and convert research into justificationalism or promotionalism. *Ersatz/ansatz* can be stopped and started at any point in the research. A "random idea" or technique can be inserted as an "experiment inside an experiment" whenever the research seems to grow stale. This will allow you to incorporate new readings, new books, or accidental encounters that inevitably will happen all along the research period. Because there can be no rule about how to insert a random factor, any insertion should have some comic or at least dramatic interest and provoke skepticism or even outrage from those who supervise your work. Your close examinations of the results of the *ersatz* insertion should be so extremely disciplined that, even in the case of total failure of the experiment, something new and interesting to talk about has emerged.

Corroboration is the final element of the scientific method. And, only if one *has* a method can others possibly reproduce it. The *ersatz/ansatz* method is more of an attitude than a method, but the requirement of corroboration forces the researcher to be *more specific* and *more disciplined* than if the research were to be shelved and forgotten. The method *as method* must be articulated, and in most cases I would predict that this articulation will be far more interesting than any "results" the method produced. Such is the case with artists who style their own procedures after the scientific method, such as Francis Alÿs, Josef Bueys, or Joseph Cornell. (In cinema, the "scientists" are easy to spot: David Lynch, Luis Buñuel, Alfred Hitchcock, Jean-Luc Goddard, and directors of "atemporal cinema.") Even painters can be advocates of the scientific method, as Henri-George Couzot's film of Picasso painting on a translucent screen revealed.[2] In a real sense, the method is more important than what the method aims to reveal, for it is at the level of methodology that real reflection can take place in an open-ended way, since "all of the cards are on the table." Along with the null hypothesis and principle of disinterest, corroboration is the ultimate *ersatz* because it is like a zero-reset button that asks what the value of a project has been. As with most scientific research, even the most objective experiments have revealed the inner prejudices of the paradigm or the researchers themselves, and the larger question of how cultures tend to limit what they wish to know comes up for debate. This is not a bad result.

ersatz, poetic mode

In studies of the research of fiction authors, poets, artists, and architects, the *ersatz/ansatz* methodology is appropriate if, for no other reason, than it comes closest to characterizing the "optimizing" procedures used to combine the different modalities of preparations that artists must make before undertaking the artwork proper. I will refer to these generally and generically, singling out examples only here and there to make a point.

James Joyce is most famous for the idea of epiphany, which he addressed at a theoretical level in great detail (*Portrait of the Artist as a Young Man,* 1914). Epiphany is at first the "suchness" or *quiddity* of the esthetic moment. Comparison to the arrival of the Wise Men after the birth of Jesus should be read in relation to the celebration of this event, where appearance has a sudden and unexpected transformational value. However, Joyce saw epiphany in decidedly secular terms, so much so that it established Joyce firmly as a modernest on account of the "aleatory" (chance-directed) method of accumulating materials. Joyce

[2] ChristopherLloyd, *Henri-Georges Clouzot* (Manchester UK: Manchester University Press, 2016).

used epiphanies as the model of events experienced by characters in his novels, but it was also both (1) a model of what happened in the act of reading/construing texts, in particular the cryptic text of *Finnegans Wake*, and (2) a method for discovering detailed content to use in novels as well as the ideas to serve as structuring motifs. In this latter function, Joyce notoriously employed notebooks he carried with him at all times, jotting down seemingly trivial details — menses, train schedules, the arrangement of objects on a diner table, the dress of passing strangers. These had no importance other than they "happened into view" and served to randomize Joyce's thoughts. Some of the recorded materials could be directly incorporated into texts, where they figure as representative of the public spaces encountered by a pedestrian walking, say, around Dublin, as in the novel *Ulysses*.

Joyce may seem be an extreme example, but just a glance at the work of Francis Alÿs, where aleatory devices such as dripping paint or a child's metal hoop are used to carry the imagination through an "impossible collation" of scenes, situations, and visual *collages*. The artist Jon Rafman downloads scenes from Google Street View, catching scenes that strike the viewer as improbable if not incredible and outlandish. The composer John Cage developed his controversial method of composition from chance combinations of varied "inconsequential" materials, such as anecdotes, jokes, radio broadcasts, graphic patterns. Sometimes musicians were required to simply "throw in something at random." Julio Cortázar's novel *Hopscotch* invites the reader to re-read the novel several times, using suggested chapter re-arrangements or, at the reader's pleasure, random order.

Even where there are no overt methodologies employing aleatory materials or techniques, art in general testifies to a commitment to the "*ersatz/ansatz* idea" in its commitment to using the creative process to discover rather than simply record. Even in highly mapped-out projects, there is some stage at which the composition experience lays itself completely open to suggestion, or when the artwork itself commits to a "hypnotic" state of auto-suggestion. Repetition in music accesses this state directly, and in extreme examples this intentional technique has been connected to a psychopathological condition, as in the case of Ravel's obsessional/repetitive *Boléro*.[3] Hypnotic suggestibility in this case is the transference of *ersatz/ansatz* to the experience of the audience whose imagination is stimulated to drift randomly about.

Art therefore testifies that *ersatz/ansatz* figures prominently as (1) a research method, (2) a component design for elements appearing directly in the work of art, and (3) as a model of the experience of the audience. Concluding, we could say that, in science, *ersatz/ansatz* not only serves as an option when the research faces a seemingly insolvable or simply complex issue but as a pure distillation of the essence of the scientific method. *Ersatz/ansatz* is equally central and indispensable to the procedures, content, and reception of art in the multiple forms of "the aleatory," "the epiphany," and "revelational audience perception." In other words, *ersatz/ansatz* is not an option, it is a necessity.

film ersatz

It would seem that *ersatz/ansatz* would not belong to film creation/production because of the elaborate support technology required to make films. Let's take a different tack. Tehrani's original conjecture positions a viewer in front of a window gazing at a view, at a distance, of a cityscape epitomized by a "skyline" profile of buildings against a sky. The similarity of this positioning to that of a film audience is

[3] Peter Aldhous, "Boléro: 'Beautiful Symptom of a Terrible Disease'," *New Scientist* (7 April 2008). Online text: https://www.newscientist.com/article/dn13599-bolero-beautiful-symptom-of-a-terrible-disease/.

sufficient to warrant a comparison of the city's visibility to the classic "fourth wall metaphor." The fourth wall in cinema is short-hand for the construction of interior sets made to look as if the camera is in an enclosed room, while in reality the set is a cut-away construction that opens one or several sides of the virtual room to filming apparatuses — lights, cameras, electrical connections — plus the director and crew who stand by with the filming of each scene. This occupation of the fourth wall is invisible to the audience who take the place of equipment and personnel. Even when the film takes place out of doors, the concept of a fourth wall indicates this replacement of production equipment for the reception space and its occupants.

The fourth wall idea is so intuitively grasped and fundamental that it is easily borrowed by other art forms, even non-visual ones, to caption the way that the production of a work is synched to the processes of consumption and reception. In narrative, for example, the point of view is a pivotal element of control that determines what the reader regards as "normally available" perceptions and those that are privileged by an all-seeing, all-penetrating authorial capability. In this case, the fourth wall is analogous to the view of a god-like entity capable of floating above the action and swooping in at will into situations and even private minds.

Figure 5. Bird's-eye views of American cities were printed for popular consumption throughout the last half of the 19th century. These went far to construct a new urban consciousness by putting the city's landscape in relationship to a distant perspectival horizon (equated with a future) and showed the original foundational parts of the city in relation to modern expansion.

Returning the fourth wall metaphor to the original stated situation of a seated window-gazer, the issue is to what degree the window corresponds to a "fourth wall" presentational aspect of a city, a conscious fashioning of imagery that cities often use to promote their desirability. When Georges-Eugène Haussmann opened up Vienna and Paris with circumferential boulevards, one intended result was to create an "interior face" with fresh construction of highly visible, highly fashionable buildings to be appreciated by leisurely passengers riding at a steady pace around this interior city. In the more conventional situation of cities that front on natural divides such as ocean fronts or mountain ranges, the city's representation through a sky-line profile is a ready-made construct. This fourth-wall function can be created with artificial vantage points — typically local hills or mountains — where a panoramic view can be combined with park amenities. In these examples, cities may be seen to work hard to create their own fourth-wall images, to shape their popular identities, and the coincidence between the window as a "subjective" optic and the fourth wall as an "objective" optic invites the construction of a hybrid boundary phenomenon reflecting this double nature.

Figure 6. Anaxagoras, depicted as a Medieval scholar in the *Nuremberg Chronicle.* Anaxagoras argued that everything in the world was a combination of primary unchanging ingredients, and that perceived changes were really changes in the proportions of those elements.

coda: the membrane of instrumental cause

If the fourth wall is a "native state" of all objects and all objectivity — in effect, a built-in desire to *show off, with or without reference to subjects or subjectivity* — should we not consider how any ontology might do well to consider the role of an "internal membrane" at the position of the fourth wall, a veil or coating of dust or cast of light, something that is both an inside and an outside in material and experiential terms? A quick point of reference would be the surface imagined to exist at the proscenium arch of the standard theater, dividing the stage and backstage from the auditorium. There are several formal aspects of this traditional architectural example.

First, the theater is given credit for the birth of both the art of perspective representation and the desire to use a "flattened" space for a stage that must be "re-deepened" through perspective manipulations. Credit for this as a technique goes, according to Vitruvius, Anaxagoras. This is funny in the sense that Anaxagoras could be said to argue that everything we experience in the world is the result of a proportion relating primal, fixed elements. His X/Y thesis perfectly condenses the logic of perspective. It's a "this for that" affair, a something in *relation* to something else, a numerator grounded by a denominator. This echoes the argument made by an even trickier Greek, the Lying Cretan, who in saying that "All Cretans are liars," made the point that every utterance (and human subjects are essentially the "animal who utters") creates a *double register*, one by which content is transferred in a liquid flow, another in which action *stages* itself. The Content and the Form naturally contradict each other, which is why they are traditionally distinguished, apples and oranges. The frame is not a part of the picture, it is an "instrumental cause" designed to make the in>out/out>in process as seamless as possible. When the Cretan mixes Form and Content, the circularity becomes a joke. "Just who is speaking, here?" And, we can't easily separate the Acting Cretan from the Messenger Cretan.

The fourth wall of the theater, the membrane at the proscenium arch-point, is just such a frame/Form. It is instrumental cause in a nutshell: an in>out/out>in function, pure transparency. But, on either side of this membrane, there are two different *kinds* of space, the stage space suffers from a collapse of dimensionality, while the auditorium space clamps the audience into a tube-ideal, a "perfect viewing point" from which the perspective will work perfectly. The collapse of space on one side of the proscenium, "resuscitated" by perspectival illusion, necessitates a counterpart spatial transform that narrows and stills (and silences) the audience space. Metaphor on stage, catalepsis in the auditorium, metalepsis (the metonymy of the Frame) in between. James Joyce would possibly formulate this as Route 101 — two one's (twone), nothing in between.

Returning to the seated window-gazer, the catalepsis of the easy-chair and position in front of the window provide an example of the perfect audience space. The simplicity of the window frame (untroubled by curtains or shutters) constitutes an ideal instrumental cause. And, the choice to show the city as a skyline says just what happens when, given all the space in the world, a profile is preferred to bring out the character — the innate desire to create a fourth wall — of "all objectivity," at least all objectivity that can be represented in urban form. The two kinds of compression, flattening on one side and narrowing on the other, show the commitment to the dreamlike capabilities of illusion. Once this membrane is in place, once Form purifies the function of instrumental cause, hypnosis is in effect. Hypnosis>hypnosis>hyperGnosis — the knowledge one can gain through dreams. Reverse engineer the membrane, the division between Form and Content, and you get a *key function*, a portable insert-anywhere device that, in any encounter, puts a fourth-wall window that induces a dream. This is a "hysterical" insertion, since outside of the traditional setting of the theater or art museum, it is unexpected and even bizarre.