Autonomy of Performance

The position of Autonomy and Contingent seek to transcend style and taste, while requiring a social, economical, cultural, and ecological relevance. Autonomy of performance speculates on the agency of performance within the debate of the autonomous position [architecture in search of form] and contingent object [performance in search of architecture. The agency of Performance links each position through a search of ideal form in architectural object through the lens of the Connecticut River valley tobacco barns.

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AUTONOMY VS. CONTINGENCY

Autonomy _ freedom from external control or influence; independence

Contingency _ a future event or circumstance that is possible but cannot be predicted with certainty; existing in the nature of circumstance related to external forces

The dynamic relationship between the two architectural positions, Autonomy and Contingency, leads to a divided debate with the concern of the progression of architecture defined as a discipline of theory and of practice. The enduring debate questions the progression of architecture through cultural relevance, social and political influence, economies, formal expression and aesthetic, and ecological systems. The relationship between the ideas of Autonomy and Contingency will remain firmly at odds, the interesting moment lies within their commonality. Within a vast pool of influences, a common stimuli is referenced throughout the debate's history-the quest for ideal form. As described below, the autonomous object focuses primarily on defining an ideal form-how

ever, one can only suggest the notion autonomy, because inevitably pure autonomy will be lost as the object is forced to negotiate the physical realm.

Autonomous architecture is closely related to the idea of type and the notion of an architectural discipline. The possibility of autonomy ultimately depends on architecture's reference to a priori, ideal forms.[1]

As with Autonomy, the ideas of Contingency derive from a quest for ideal form. Divergently, the contingent object's pursuit of ideal form is rooted in recognition of the external forces belonging to physical realm.

> "If our designs for private house are to be correct, we must at the outset take note of the country and climates in which they are built."[2]

ARCHITECTURE IN SEARCH OF FORM

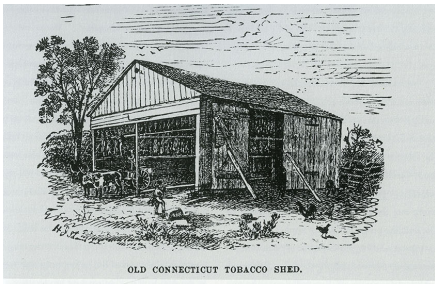
The positioning of the Autonomous and the Contingent as a set of ideals simultaneously being pushed apart while bound together focuses attention towards the moment of divergence. The beginnings of ideal form are found within the physical construct of man, specifically with the form of the physical vessel described as the human body. The physical characteristics belonging to man began to develop the framework of formal rules; this framework would be used as a guide to construct the built environment. Returning to Vitruvius's The Ten Books on Architecture, evidence of these early definitions and guidelines are founded in his formal studies describing the body of man as the ideal means of understanding architecture. Man's construct was not only a formal model in means of symmetry, proportion, and relationship, the analysis of the body framed an understanding of man's quest of dominance over environment. The physical characteristics of man provide a relationship between form, construct and environment establishing the critical link to object and place, fundamental to the discipline of architecture.

The Autonomous and Contingent positions are linked by the quest for ideal form while being divided by the built object's association between man and environment. The two pursuits found their diverging trajectories in the ecology of object; the relationship formed through the physical existence of the architectural object and the environment it exists in. In essence, a contingent relationship of object to environment can be defined as a partnership; autonomy is in search of the contrary, a relationship of dominance, centered on self-interest and self-referential characteristics. At the core, the essence of autonomy can be understood as free from external control or independent; while the essence of contingency situates itself within the nature of circumstance, dependent. The ideas of Contingency and performance as a dialogue with Autonomy through the discipline of Architecture, is a dialogue stemming from the pursuit of authority to environment opposed to companionship.

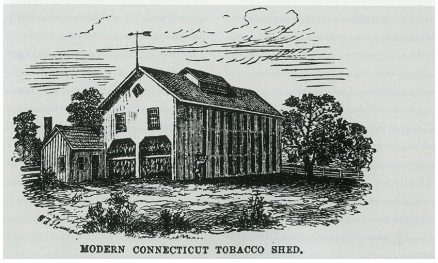
Vitruvius set forth the two directions which discuss the relationship of object and place: one, offering embedded logic and information pertaining to the forces of place: physical characteristics, climate, culture, material, etc. The second, Vitruvius understood man's role as defining the proportions of built context and a means to overcome the forces belonging to place, a forceful intrusion of form over nature. By these definitions, the search for autonomous architecture finds itself void of dialogue related to the place and physicality. The self-referential nature of autonomy has stalled the progression of the autonomous position to the exploration of form void of relevance. Historically, Autonomous architecture has been challenged with the necessity to understand and have an impact on the political realm, the city and built context and tangible influence upon the discipline of architecture.

> 'Today (as of 1984) the proponents of autonomous architecture are in a vulnerable position because the theory has so far failed to spawn a method for political confrontation or for effecting change. By refusing to assume a moralistic posture toward the public sphere, while at the same time not wishing to express the values of the private realm, these architects lose by default."[3]

The challenge set forth by Harvard Architecture Review questions what will come of an architectural theory interested in autonomy once forced to acknowledge the external forces and influences manifested in the physical realm? The theories of Autonomy face a difficult situation related to its core value, independence. From these challenges set forth by the discipline, we can understand the necessity of autonomy to reconcile the severity of the term independent. An independent mentality, as related to political and social environments and with the built context, defaults to a relationship of dominance or authority. The concept of an authoritative relationship of one entity over another, yields responsibility-which will be investigated in terms of performance. To progress the position of autonomy in relevant terms to the discipline, the defining of performance must come to the fore.



OLD CONNECTICUT TOBACCO SHED.



MODERN CONNECTICUT TOBACCO SHED.

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Figure 1: A depiction of the evolving tobacco barns from the nineteenth century appearing in the, E. R. Billing's 1875 Tobacco. The Old Connecticut Tobacco Shed employs a general logic to ventilation with large singular openings. As the market began to demand a higher quality tobacco leaf the sophistication in the drying techniques progressed.
Conneticut Valley Vernacular

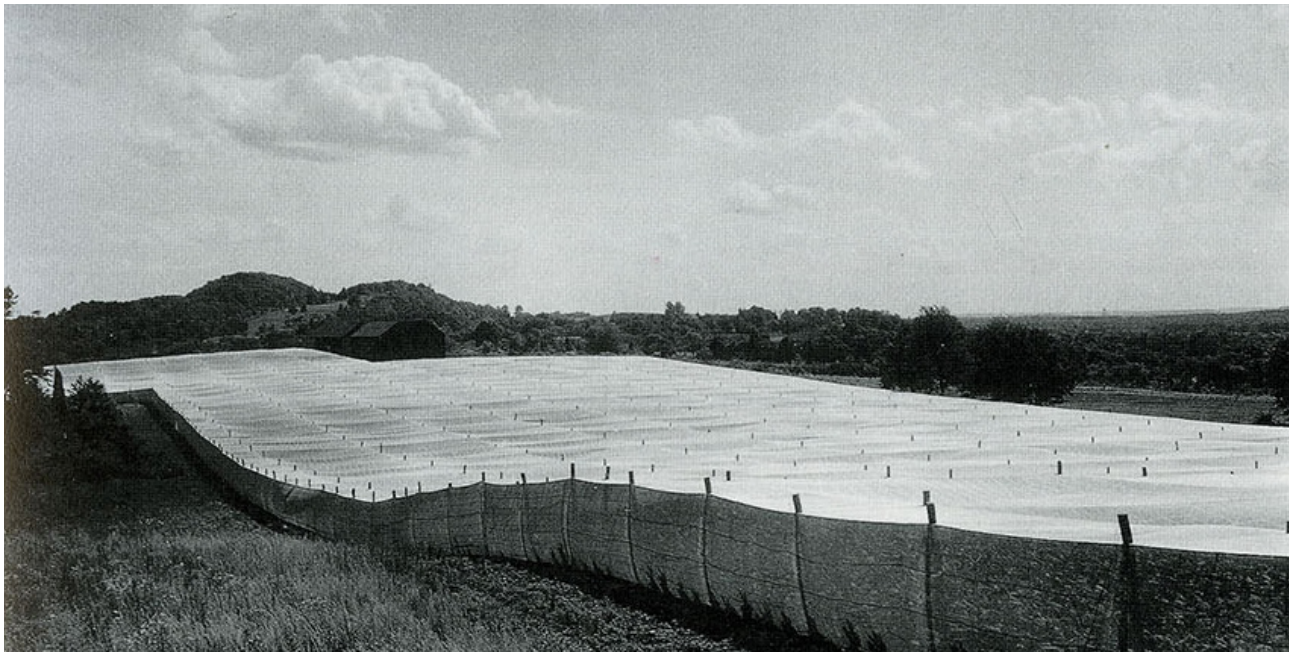

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Figure 2: Continuous stretched fabric canopy providing shade to tobacco field in Tariffville, CT (1936). *Conneticut Valley Vernacular.*

FORM VS. PERFORMANCE

Form _ the visible shape or configuration of something as an expression of forces

Performance _ the evaluation of an action or process of accomplishing a specific task or function

Investigation into the built objects of the Connecticut River Valley exposes a context rooted in the pursuit of ideal form-manifested on performance. In conception, these built objects hold little concern in a connection to building typologies, architectural styles or to fulfill the aesthetic desires for the people whom will live and operate within them. The community, resources, and structures developed around a single commodity-the tobacco leaf. The tobacco crop permeated the river valley with tobacco fields and strategically placed gabled structures, referenced as tobacco barns throughout the landscape. The tobacco barn structures peppering the Connecticut River Valley landscape fall comfortably within the definition of contingent, a built object belonging to the forces of place. However, the evidence of quest for a pure form- based on necessity and performance-is overwhelming in the repetitive structures refined as knowledge migrated from generation to generation. Architecture and form are in fact given priority in the contingent object, due to the framework of which it springs from-performance.

For a moment the shared quest 'to transcend style and taste' allows for a bridge, between the ideas of autonomy and the ideas of contingency. The authority of contingent forms, in the case of the tobacco barns, derives its strength from an understanding of co-existing in place; place defined by external forces converging to exist in a defined environment. Performance becomes the agency in which the contingent structures of the Connecticut River Valley find themselves spawning; social, political, economic and environmental systems, interrelated by place.

PERFORMANCE IN SEARCH OF ARCHITECTURE

The embedded knowledge of the tobacco barn structures belongs to ecology of place, specifically the Connecticut River valley. From the recognition of ecologies one can extract knowledge of resources, environmental conditions, economies, political interest and cultural bearings. These components, which define the ecology of place, conspire as a set of forces persuading a dialogue with the man made built context. The tobacco barns were objects created as a means of engagement with economies and the market, cultural

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impacts, social aspects related to the founding of community; a tie between shifting cultures, political interests, availability of resources to tectonics and environmental conditions. The people responsible for the tobacco barns were not architects; they were farmers who understood how to extract the embedded knowledge of place.

The resultant formal configurations of the tobacco barns owe their being to the direct relationship of agriculturally defined territories and the sensitive criteria belonging to the tobacco leaf production; criteria stemming from market forces driven by cultural expectations of quality cigars. The physical length of the barns is a direct correlation of the crop yield expected from the claimed territory by the farmers for the growing of crops. The length of the structures can be adjusted through the addition of structural 'bents', which define the extruded form allowing for expansion of the structures related to the growth of agricultural prosperity.

As the relationship of the length of the barn belongs to the crop yield, the 'structural bent', or the cross section of the structures owe their foundation to the locality of resources and per-formative criteria necessary to the drying of the leaf. The limitations on the availability to the structural wood members of place, correspond directly in the roof spans and the heights of the structures. In addition the tobacco market demanded a leaf handled, dried and packaged in a specific manner without defect. The available resources for construction guided the section of the barns making possible a rigor of performance allowing the tobacco farmers the ability to bring a tobacco leaf to market, yielding a return on investment.

The tobacco barns manage an open dialogue with the enveloping environmental conditions specific to the Connecticut River Valley through the building's skin. The open dialogue

Figure 3: Example of a shading structure erected for the growth of Sumatra tobacco. Using basic materials and construction techniques, large expanses of agricultural land were shaded producing a microclimate necessary for the delicate tobacco leaves. *Conneticut Valley Vernacular.*

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Figure 4: A classic Connetict River Valley tobacco barn, closed. *Conneticut Valley Vernacular.*

Figure 5: The evidence of the evolving knowledge associated with the drying of the tobacco leaf can be seen in the advancements in construction methodologies. The Modern Connecticut Tobacco Shed depicted employs a system of vertical boards, which modulate providing an even distribution of ventilation to the hanging tobacco leaves. . *Conneticut Valley Vernacular.*

generated by the structures allows a high quality of performance to be obtained specific to the management of the tobacco leaf and offering the building existence without reclamation by the ecology in which it exists. The tobacco barns use an operable wood plank 'wrapper' to negotiate the dialogue between the tobacco leaves and the surrounding environmental conditions. The wood wrapper consists of vertical wood planks attached to the structural bents by way of a horizontal purlin system. The vertical wood planks modulate through a series of hinges allowing the skin of the barns to 'breath' or ventilate. The modulation of the skin moves fresh air across the tobacco leaves while keeping the rain from entering the building during the delicate drying process. Flexible in nature, the wood skin can be easily modulated, adaptable to daily or hourly changes in the environmental conditions, providing essential microclimates for a controlled drying process. [Precedents of horizontal applications of the 'wrapper' exists as well, with slight variations of hinging/opening operations.] The structural framework of the barn simultaneously supported the ventilating wood wrapper while defining the intricately scaled interior drying grid of the tobacco leaves. The structures manage a free exchange of energy between the exterior and the interior environments without the need for additional mechanical systems. In the end the buildings produce a high level of performance with a low level technological sophistication attributed directly to the extraction of the embedded knowledge of place.

The structures of the Connecticut River Valley still hold a presence throughout the landscape today and while the mechanisms of production rapidly advance, the tobacco barns

still remain poignant buildings in operation today. Misinterpretations of the barns depicted as autonomous architecture, specifically through the large body of photographic work of the iconic structures resting in the vast rural landscapes, manifest the moment of divergence in the Autonomous and Contingent object. The embedded knowledge of place as a physical object, the tobacco barn, is lost when defined solely though the lens of architecture. The tobacco barns of the Connecticut River Valley are not a product of an architect pouring over plans, section and formal studies in a search for idea form. The buildings belong to extracted knowledge of place and necessity. The buildings belong to performance in search of architecture.

ENDNOTES

1. HAR 1984 vol.3 winter, page 11
2. Morgan, M (1960). Vitruvius: The Ten Books On Architecture, Book VI, Chapter I, page 170 New York: Dover Publications
3. Autonomous architecture. (1984). Cambridge, MA: MIT Press.
4. Images: O'Gorman, James F.(2002) Conneticut Valley Vernacular