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The Quality of Ruins

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I read in the Architects' Journal the other day an account of the refurbishment of a 1960s council office block in Winchester. The architect, Peter Fisher of Bennetts Associates, was 'gratified that the architecture – rather than mechanical systems – is "doing the work": the new vertical ducts provide natural ventilation, give a rhythm to the façade and contribute to solar shading'.¹ What did Fisher mean by his comment? I believe that he was referring to the maturity of green architecture and its near total assimilation into contemporary advanced design, to such an extent that gizmos – wind turbines and all manner of externally applied kit, are out and architectural form is back with a vengeance. Fisher's contention is essentialist in nature, and promises a renewed manifestation of 'significant form' in contemporary design. My thesis in this paper is that the ruin in particular is the bearer of some essence of quality, acting as an 'architectural gene' which transmits this essence down through the generations. Fisher's statement lends support to my contention that the idea of the ruin has a renewed place in the contemporary architectural imagination, and it is my intention to rescue it from the doldrums of antiquarianism and fugeyism.

The art historian Ernst Gombrich enjoins us, when looking at the bleached-out remains of ancient Greek sculpture which has long lost its vivid colouring, to 'try to forget what is not here for the sheer joy of discovering what is left'.² I believe that we, as architects, need to adopt a similar attitude when we are in the presence of ruined buildings and structures, and accept that what remains has a specific value regardless of those aspects which have vanished: indeed it is precisely that which endures which imbues the ruin with its quality. This resonates with Auguste Perret's famous maxim that 'architecture is what makes beautiful ruins'.³

My aim is to reassert architectural culture, the accumulated history of design and its reference to precedents, over theory indulged in for its own sake. This is the aspect of quality I will highlight: the ability of architecture to engage with aspects of its past in order to arrive at the design of buildings which are technically and environmentally appropriate and which retain cultural memory in their fabric and composition. The ruin – its appropriation by designers and its deployment in a proposal – is indeed conditioned by theories (some of which I present here), nonetheless in essence it is at the level of culture and not theory that I make claim to the ruin's significance. Here I defer to the writings of the architect Dalibor Vesely whose implicit task it is to seek out quality from amongst the ruins of humanism, and particularly from the philosophy of phenomenology, and to propose an architecture to which technology is subservient.

The task and dilemma we are facing is how to reconcile the inventions and achievements of modern technology, which have already established their autonomy, with the conditions of human life, our inherited culture, and the natural world. We will find no answer in a naïve belief that the difficulty can be resolved by subordinating all knowledge and different ways of making to instrumental rationality and technology. Whole areas of reality are not amenable to such treatment, and perpetuating the belief that they are merely deepens the dilemma.⁴

The value of the ruin metaphor lies precisely in its relative ahistoricity: since it relates to long delapidated structures which no longer speak to us directly, their lessons are at least once removed from our contemporary, quotidian concerns. Indeed, for Vesely, as for the architectural historian Robin Middleton, the fragment occupies a central position in the culture of modernism.⁵ My role here is to investigate different aspects of the ruined fragment, and the significance they may have for the production of quality in architecture.

My method is to bring ruined objects before you in order to suggest an architectural culture that is accepting of the fragment, and which subsumes it within its general procedures. If the ruin privileges structural form (the 'section'), plan type (the 'plan') and three-dimensional

form (the ‘axonometric’) it disadvantages inhabitation (the traces of the everyday) and comfort (environmental design). Look, for instance, at the ruins of the temple of Aphaia, Aegina, Greece (early fifth century BC), and consider its drawn representation which illustrates the original building’s section, and shows its construction which approximates to a contemporary cutaway isometric or axonometric projection. **[Figs 1 and 2]**. We can see a vivid appropriation of this view of the ruin in Auguste Perret’s drawings, themselves based on Auguste Choisy’s illustrations to his book on the history of architecture.⁶ **[Figs 3 and 4]** Perret’s drawing of the *Théâtre des Champs-Élysées*, Paris (1913) and of an apartment building in Le Havre (1945-55) recall Choisy’s drawing technique which emphasises the tectonic frame. **[Fig. 5]** Perret believed in the longevity of buildings, where the structural frame would outlast all manner of short and medium-term furniture and fittings, and drew his projects as if they were in a state of construction (or dilapidation/demolition: the difference is sometimes hard to discern, just as it is in Joseph Gandy’s depictions of John Soane’s Bank of England). **[Figs 6 and 7]**

At the end of this paper I will propose a technique of reconciling art and nature, a coming together of ruined art-form and organic natural form which shows the imprint of life. My aim in doing so is to demonstrate the continuing relevance of the idea of the ruin in the contemporary postmodern era of fractal geometries and of a renewed interest in the organic. But meanwhile let us stay with the ruin and its relation with structural form, and consequently those aspects of design with which it necessarily fails to engage.

An architect like Perret would have required the structural idea underlying a building’s design to be laid bare in its ruined form; on the other hand when we visit the ruins of Agamemnon’s palace at Mycenae in the Peloponnese we struggle to imagine the interior fittings which are the signs of inhabitation: where, precisely, was the bath located in which the King was murdered by Clytemnestra? **[Fig. 8]** The plan layout is clearly discernible, but it is an abstraction, a plan (and all plans are ultimately abstractions) devoid of life.

You don’t have to be a Freudian, nor yet a Derridean, to appreciate that the ruin simultaneously represses or suppresses certain elements of architecture whilst privileging

others, in particular the tectonic. In the case of the ruin the most emblematic of the suppressed is surely Gottfried Semper's hearth element, which always was the poor relation in his quadripartite system comprising hearth, site, cladding and tectonics.⁷ Ruins are, after all, hardly hospitable places when it comes to affording environmental comfort. There was a time in the 1970s when Reyner Banham's apologia for the well-tempered environment seemed to have the critical edge in advanced architectural circles, however a whole generation has elapsed since his environmentalism which led to a kind of anti-aesthetics, and, to recap my opening gambit, the power of architectural form seems to be back with us.⁸ I was reminded of Semper's continuing relevance in much of contemporary debate when I visited his birth town of Hamburg a few months ago. In its famous *Kunsthalle* there is a suite of rooms devoted to Semper, in particular his contribution to the heated nineteenth-century debates around the subject of polychromy in architecture. The highlight of this small exhibition consists of scaled-down versions of the statuary in the pediment of the temple of Aphaia. The striking thing about these sculptures, and they really do have the power to shock, even today, is their pigmentation, reinstated according to the best archaeological and art-historical evidence. Now twenty or thirty years ago postmodern architects such as Denise Scott-Brown (1931-) or Terry Farrell (1939-) might have chosen the fact of this polychromy as the most significant aspect of the temple for contemporary relevance, whereas today (I maintain) we have reverted to the phenomenal experience of ruins, architecture's last scene of all, sans roof, sans pigment, sans comfort, sans taste, sans everything.

While we are loitering in the *Kunsthalle* we should be reminded of its first director, Alfred Lichtwark (1852-1914), who in his book *Palace Window and Double Door* argued for an 'English' domestic layout, one which banishes the *enfilade* planning and establishes the convenient plan as more important than a palatial facade.⁹ This is yet another meaning that the ruin has for the development of modern architecture, namely its insistence on the essential (that which remains) over the representative and flashy. For Lichtwark this meant the plan being privileged over the façade; and in terms of the ruin it is the essence of plan, of layout, which is more evident and telling than the remains of the façade. The plan laid bare by

buildings in their ruined form, or revealed by archaeological excavation, mirrors the central tenet of modernism which privileges plan layout over any other representation, at least in its manifestoes and aphorisms, such as Le Corbusier's "the plan is the generator".

Of course there are those ruins whose significant form is to be found not in their plans but in their facades. I am thinking of the remains of the temples cut into the rock at Petra, or the Colosseum of Rome. Here the layers of time are represented by the revealed wall substrates and finishes, which of course have their corollary in the late twentieth-century fashion for revealing elevational layers. This is seen famously in the work of the Italian architect Carlo Scarpa, and in the rebuilding of Munich's *Alte Pinakothek* in the aftermath of the Second World War that I shall examine later in the architecture of Hans Döllgast.

Le Corbusier and Albert Speer: two contrasting appropriations of the ruin in the twentieth century

Received wisdom has it that Le Corbusier was the modern architect above all others who integrated a love of antiquity into his architectural imagination. One thinks of his journey to the east in 1911 with his companion Auguste Klipstein, and his photos and drawings which would illustrate his book *Vers une Architecture*, published in 1923. These illustrations famously mixed images of old with new, and by equating North American grain silos with the great ruins from classical antiquity Le Corbusier prepared the ground for an extended range of artefacts which would populate the Purist picture. This is part of the wider neo-classicism of the early 1920s, where Le Corbusier makes common ground with Stravinsky and Picasso in his symbiosis of classical themes and motifs with modernist abstraction. The Athenian Parthenon and the Roman Pantheon were vital reminders of Mediterranean heritage for Le Corbusier, yet there is another kind of ruin which was to have an equal if not more instrumental influence on the architect.

Adolf Max Vogt in his book *Le Corbusier, the Noble Savage* refers to the influence that two timber-based architectures would have on the young architect.¹⁰ One is the Turkish vernacular epitomised by the *kiosk*, the other the prehistoric Swiss lake-dwellings of the Zurich, Bienne and Neuchâtel lakes. [Fig. 9] Vogt argues that the idea of raising buildings up on pilotis came in part from Le Corbusier's observation of archaeological reconstructions of the lakeside dwellings. These dwellings were the famous fishermen's huts which had become, by the late nineteenth century, an integral part of the school curriculum in Switzerland. The young Jeanneret would have been aware of these structures from his primary school education in La Chaux-de-Fonds in the Swiss Jura of the 1890s, and his sketches from his journey to the east in 1911 testify to his interest in the Turkish timber vernacular.

With Le Corbusier we see his interest in ruined forms, in this case ones no longer visible (their perishable form as timber structures having rendered them invisible centuries ago), being reinvented in smoothly rendered reinforced concrete. We are reminded ineluctably of the origins of classical Greek temples whose primitive carpentry forms were supposedly copied in stone. We can thus view Le Corbusier's work as a continuation by other constructional means of substantial, but ruined, architectural form and a re-enactment of it in more durable materials, and hence the projection far into the future of its significant form, or, at least, constituent elements of it. Another view of this artistic process is that it represents a reversal of the usual move from substantial, but ruined, architectural form and its recasting in less substantial materials, as can be seen in the 'cheap' construction of eighteenth-century *faux* ruins, to one where the archaeology of perishable materials leads to its petrification (perhaps 'betonisation' is an apt neologism), guaranteeing its architectural afterlife.¹¹ [Fig. 10]

The borrowing of the idea of Swiss timber pile construction seems at first sight to be an unprecedented architectural notion, and one involving a great imaginative leap on the part of Le Corbusier, namely to take inspiration from an archaeology with barely any tangible remains and to construct an architectural programme out of it. For Vogt, the preoccupations of avant-garde architects such as Le Corbusier shifted in time from Greco-Roman remains

back to prehistory, such that ‘around 1870, at the time of lake-dwelling fever, the model builder’s subject matter changed abruptly, ‘[...] such that] the beginning of things is no longer embodied by the Egyptian pyramid or the temples of Paestum; *no longer by columns on the ground but by piles in the water.*’¹² Of course, this is all part and parcel of early modernism’s interest in the primitive *per se*.

If all of this strikes you as too conjectural an appropriation of the ruin idea, let me return to the contemporary of Le Corbusier’s for whom the ruin was an obvious inspiration, and who in fact claimed to be working within a highly developed theory of the ruin: Albert Speer. Speer (1905-81) as we all know was Hitler’s architect. Following the death of Paul Ludwig Troost (1878-1934) at the start of the Nazi regime, Speer received the commission for the Nuremberg *Zeppelinfeld* – directly from Hitler, by all accounts. His meteoric rise through the ranks was such that by 1937 he had been promoted to become, in effect, Berlin’s chief architect.

For Speer, ruin value (*Ruinenwert*) involved constructing monumental buildings in such a way that as they fell into disrepair and dilapidation, or were damaged (say, during war), they would still maintain their essential form and character as structures of great import and significance. The historian Joachim Fest attributes these words to Hitler at the foundation-stone ceremony of the Nuremberg Nazi Party Congress Grounds:

But if the Movement should ever fall silent, even after thousands of years this witness here will speak. In the midst of a sacred grove of age-old oaks the people of that time will admire in reverent astonishment this first giant among the buildings of the Third Reich.¹³

Speer’s means of ensuring eternal life for his buildings was

[...] to avoid, as far as possible, all such elements of modern construction as steel girders and reinforced concrete, which are subject to weathering. Despite their height, the walls were intended to withstand the impact of the wind even if the roofs and ceilings were so neglected that they no longer braced the walls. The static factors were calculated with this in mind.¹⁴

Notwithstanding the fact that recent historical research has cast doubt on Speer's motive for this method of construction (the historian Angela Schönberger believes that his specification of natural stone without the use of iron reinforcements had an economic and military motive), and the knowledge that Speer only articulated his theory of ruin value in his memoirs written during his Spandau captivity, the meaning is clear: ceremonial, representative buildings for the state should not only emulate in their entirety those of the ancient world, they should also be built in such a way that, in their ruined state, they would actually resemble ruins from antiquity.¹⁵

The spuriousness of Speer's architectural pretensions is nonetheless an important aspect of the meaning of the ruin in the modern imagination, especially in light of the *faux* ruin which became a common landscape motif in the eighteenth century, and received a fresh lease of life in Postmodernism; one thinks of the work of James Wines and SITE architects, as well as Stirling and Wilford's 'ruined masonry' at the *Staatsgalerie*, Stuttgart (1977-1983). The architectural historian Hanno-Walter Kruft points to the first recorded mention of ruin-value theory in Speer's memoirs of 1969, in other words in that later period of his Spandau captivity when he was busy inventing his alternative biography so as to appear as light brown as possible.¹⁶

In a sense Speer's personal disingenuousness with respect to the ruin as idea may signify his belonging to a tendency of postmodernism which begins with sham ruins in the West European landscape garden and continues to this day with, for example, Bernard Tschumi's (1944-) mock-Constructivist remains in his park at La Villette, Paris (1982-93). If, for post-modernists, truth is relative, then this remains the case whether one is talking about artistic values or affairs of state.

A paper on this subject would not be complete without reference to the twentieth-century architect who had the most obvious modern relationship to the ruin: Louis Kahn.¹⁷ Lack of space prevents me from exploring his work here. However, in the final part of my paper I would like to point to a less literal, more nuanced appropriation of the ruin motif in recent architecture, where the metaphor works at a level beyond the 'merely' material and tectonic. I

maintain that the ruin is emblematic of a lost quality in architecture, and heralds a return to the quality that the Swiss architect Martin Steinman refers to as *forme forte*.¹⁸ Just as contemporary ideas of the ruin have influenced design, so too has our image of the ruin changed in the light of our concerns today - a point well made by Christopher Woodward in his book *In Ruins*.¹⁹

Hans Döllgast and Heinrich Tessenow

In 1945 Munich was in ruins. The city became famous in the post-war era for its 'conservationist' stance in respect of its ruined heritage, and unlike, say, Berlin with its conserved ruin of the *Gedächtniskirche* (Memorial Church), chose to go down the road of restoration, obliterating wherever feasible all traces of war damage.²⁰ A notable exception was the way in which the great art gallery designed by Leo von Klenze (1784-1864), the *Alte Pinakothek* (1822; built 1826-36), was treated by the architect Hans Döllgast (1891-1974). [Fig. 11] In Berlin the architect Egon Eiermann (1904-70) chose to conserve the ruined tower of the church (1891-95) designed by Franz Heinrich Schwechten (1841-1924). Eiermann's scheme (1957-63) clearly distinguishes the ruined, historic fabric from the new buildings of belfry, baptistry and church. Döllgast, on the other hand, integrates what is salvageable from the ruined gallery (both ends of the long range of the block) and carefully stitches together the new centre. Thus far, Döllgast was working in the spirit of the general wish in Munich's planning and architectural circles to preserve the historic substance of the pre-1945 city, while carefully demolishing the most public Nazi structures of Troost (1878-1934), such as the pair of Temples of Honour (*Ehrentempel*) flanking the *Königsplatz* and discreetly removing Nazi insignia from other buildings. The reconstruction was aimed at restoring Munich to its 1933 state, removing obvious traces of the Nazi era in addition to the war damage of the 1940s.

Döllgast had to work within a stringent budget, which meant that, even if desired, an historically authentic reconstruction was never in question. The budgetary restrictions impelled him to consider the simplest infilling of the gap in the façade by means of a

lightweight loggia of circular hollow steel pipes supporting a continuation of the pitched roof. This loggia was conceived as an external space and accommodates a handed pair of straight-flight stairs. The external wall is thus pushed back to the rear of this loggia and staircase. This was 1952, and Döllgast's intention was to infill the front of the loggia with a screen of glass-block walling. However, three years later the final stage of the reconstruction was carried out by walling up the opening in a 'stripped-down' version of von Klenze's original scheme, shorn of its nineteenth-century embellishment. [Fig. 12] As Döllgast himself said, 'Why disguise something! People should see that the Pinakothek has its history and that it, too, has not been spared by the war.'²¹

He was decidedly against the romanticising of ruins, and presenting them as if they were twentieth-century versions of Romantic *faux* castles from an English landscape park. There are perhaps two interesting observations to be made. The first is the plan layout of Döllgast's reconstruction. It radically alters von Klenze's first floor gallery arrangement of an enfilade of exhibition spaces running along the east-west axis, flanked by a pair of smaller cabinet spaces, themselves enfilade. The main staircase, previously located in one of the wings, assumes in Döllgast's hands a more twentieth-century aspect in which circulation is privileged and showcased over and above the accommodation devoted to the works of art themselves. The second, more 'visible', observation is that the slender steel columns of the open loggia from the 1952 reconstruction are actually retained in the subsequent masonry walling, which is built just behind the line of columns. They end up being partially embedded, as if they were attached columns or pilasters. In this way Döllgast achieves a remarkable subtlety in his appropriation of the ruin and the fragment, incorporating not only the early nineteenth-century remains, but also his (structurally redundant) tectonic of 1952 in the final work. It is an example of working with successive layers of architectural history that has become much more widely known in the work of the architect Carlo Scarpa in the Veneto. The south façade of the *Pinakothek* that we see today is uncannily reminiscent of the contemporary appearance of the Roman Colosseum, with its successive layers of architectural preservation, conservation, and restoration. What is crystal-clear to today's eyes is the

aesthetic veneer of the Roman appliqué of superimposed Doric, Ionic and Corinthian orders as a kind of screen aestheticising the brute arched openings in the masonry wall.

Döllgast's rebuilding of the *Pinakothek* is one of the few reconstructions in Munich, the founding city of the Nazi party and so-called "Capital of German Art and the Capital of the [Nazi] Movement," which 'determinedly resisted this wilful forgetfulness [of the Nazi period]. [It] was rebuilt 'incorporating scars' from the war and using a simple brick infill to patch the shattered stonework and leav[e] the pockmarks of bullet holes visible.'²²

The German architect Heinrich Tessenow (1876-1950), like Döllgast and Scarpa who followed him, had a relationship with the ruin which was at once practical and poetic. Two projects come to mind in this respect, the 1930 remodelling of Karl Friedrich Schinkel's guard house in Berlin – the *Neue Wache* (1816-1818) - and his (unplaced) competition entry for a bathing establishment on the German Baltic island of Rügen (1936). The *Neue Wache* project has a particular resonance in German architectural history, and indeed with German history *tout court*, since it is the building above all which each generation in Germany, of every political stripe, has interpreted according to its own ideological beliefs. By the late 1920s Schinkel's old guard house had fallen into disrepair, and in fact was no longer really required for its original military purpose. Tessenow's scheme was to gut Schinkel's interior and make a simple stone-clad space with an open oculus in the ceiling. The precedent from antiquity (at least for the opening to the sky) was one of the few Roman buildings to have remained intact over the millennia and not to have succumbed to the process of ruin and dilapidation – the Pantheon. Here Tessenow presents an interior space as if it were partially external, thus lending it one of the hallmarks of the ruined structure.²³ **[Fig. 13]**

If Tessenow chose not to incorporate the existing chestnut grove behind the guard house into his finished design, in his project six years later at Rügen he took the idea of a grove and rendered it architectural. **[Fig. 14]** Of course it was nothing new in architecture to take the image of a tree, or forest, and turn it into building. The examples are manifold, from the great mosque at Córdoba (La Mezquita, 785-987), to Henri Labrouste's *Bibliothèque Nationale*, Paris (1854-75), and to Jean Nouvel's undercroft at the *Institut du Monde Arabe*, Paris (1981-

87). What has this got to do with the idea of the ruin? Only this: Tessenow's integration of the forest metaphor into a building design is a way of dealing with organic material and of squaring it with the more substantial and permanent qualities of a masonry tectonic. This is where Tessenow joins the idea of the ruin, and its most potent image, the columns standing (or lying) bereft of their supported architraves, as if they were trees in a forest grove, with his idealisation of nature. If the ruin is the place where nature and time infect the pure Platonic architectural image, then the most effective and complete appropriation of the ruin metaphor will be the one which attempts just such a symbiosis between nature and art.

Contemporary examples abound of this petrification of the forest motif. Here we have the "Oui!" Pavilion for the Arteplage at the 2002 Yverdon-les-Bains expo designed by Elizabeth and Martin Boesch, [Fig. 15] while in Kassel the Wilhelmshöhe station designed by Andreas Brandt, Rudolf Böttcher and Peter Schuck (1983-91) clearly reprises the forest motif. Perhaps most famously Daniel Libeskind's Jewish Museum, Berlin (1989-99) incorporates a garden of remembrance comprising a grid of forty-nine concrete columns.

Goethe was perhaps the pre-eminent thinker as the Age of Enlightenment gave way to Romanticism, the period in which the ruin last held sway over the western aesthetic imagination. I turn to his poem 'Nature and Art' from 1800 which effortlessly sums up these apparent contradictions, and I leave the final word to him:

Nature and Art, they go their separate ways,
 It seems; yet all at once they find each other.
 Even I no longer am a foe to either;
 Both equally attract me nowadays.

Some honest toil's required; then, phase by phase,
 When diligence and wit have worked together
 To tie us fast to Art with their good tether,
 Nature again may set our hearts ablaze.

All culture is like this: the unfettered mind,

The boundless spirit's mere imagination,
For pure perfection's heights will strive in vain.

To achieve great things, we must be self-confined:
Mastery is revealed in limitation
And law alone can set us free again.²⁴

NOTES

¹ Hattie Hartman, 'Even without renewables it is still sustainable', *The Architects' Journal*, vol. 225, no. 16 (26 April 2007), 38-39 (p. 39).

² Ernst Gombrich, *The Story of Art*, 11th edn, (London: Phaidon, 1968), (p. 63).

³ Cited as 'architecture is what leaves beautiful ruins' in Karla Britton, *Auguste Perret*. London: Phaidon, 2001), p. 240. Originally cited in *Revue d'Art et d'Esthétique* 1-2 (1935), pp. 41-50).

⁴ Dalibor Vesely, *Architecture in the age of Divided Representation* (Cambridge, MA and London: MIT, 2004), p. 7.

⁵ See Barry Bergdoll and Werner Oechslin, (eds). 2006. *Fragments: Architecture and the Unfinished* (London: Thames and Hudson, 2006).

⁶ Auguste Choisy, *Histoire de l'Architecture* (Paris: Gauthier-Villars, 1899).

⁷ See Gerald Adler, 'Tessenow in Hellerau: The Materialisation of Space' (unpublished doctoral thesis, University of Kent, 2004), pp. 98-101.

⁸ Reyner Banham, *The Architecture of the Well-Tempered Environment* (London: Architectural Press, 1969).

⁹ Alfred Lichtwark, *Palastfenster und Flügeltür*. (Berlin: Gebr. Mann, 2000 [1899]). See also Mitchell Schwarzer, *German Architectural Theory and the Search for Modern Identity* (Cambridge: Cambridge University Press, 1995), pp. 16-17 and Harry F. Mallgrave, *Modern Architectural Theory* (Cambridge: Cambridge University Press, 2005), p. 210.

¹⁰ Adolf Max Vogt, *Le Corbusier, the Noble Savage: Towards an Archaeology of Modernism* (Cambridge, MA: MIT; London: MIT, 1998).

¹¹ Of course, the durability of a reinforced concrete column depends to a large extent on the protection afforded the steel reinforcing bars by its concrete cover. Too thin a cover, as is the case with poorly constructed work, leads to spalling and corrosion of the steelwork. This led the architect Leon Krier (1946-) to quip that the r.c. column represented the sixth order or the end of architecture with its rusting capital of angular steel bar ‘acanthus leaves’ (see Fig. 10).

¹² Vogt, p. 266 (his emphasis).

¹³ Joachim Fest, *Hitler* (Harmondsworth: Penguin, 1977) [1973] , p. 784.

¹⁴ Fest, p. 528; see also Alex Scobie, *Hitler's State Architecture: The Impact of Classical Antiquity* (University Park, PA: Pennsylvania State University Press, 1990), pp. 93-95.

¹⁵ Angela Schönberger, *Die neue Reichskanzlei von Albert Speer: Zum Zusammenhang von nationalsozialistischer Ideologie und Architektur* (Berlin: Gebr. Mann, 1981), pp. 168-69.

¹⁶ Hanno-Walter Kruft, *A History of Architectural Theory: From Vitruvius to the Present* (New York: Princeton Architectural Press, 1994), p. 390. Kruft also questions Speer’s averred debt for his monumental approach to Ledoux and Boullée, when he maintains that ‘Ledoux’s premises were quite different, while Boullée’s designs did not become known until after the end of the Second World War.’ Kruft, p. 390.

¹⁷ See Neil Levine, ‘The Architecture of the Unfinished and the Example of Louis Kahn’, in Bergdoll and Oechslin, pp. 323-342.

¹⁸ Martin Steinmann, *Forme forte: Ecrits/Schriften 1972-2002* (Basel: Birkhäuser, 2003).

¹⁹ Christopher Woodward, *In Ruins* (London: Chatto & Windus, 2001).

²⁰ See Gavriel D. Rosenfeld, *Munich and Memory: Architecture, Monuments, and the Legacy of the Third Reich* (Berkeley, Los Angeles, CA and London: University of California Press, 2000).

²¹ Wolfgang Pehnt, *Deutsche Architektur seit 1900* (Ludwigsburg: Wüstenrot Stiftung; Munich: Deutsche Verlags-Anstalt, 2005), p. 265 citing the *Münchener Merkur*, 16 June 1952. Original German: ‘Warum etwas vertuschen! Die Leute sollen sehen, daß die Pinakothek ihre Geschichte hat und daß auch ihr der Krieg nicht erspart geblieben ist.’

²² Robert Bevan, *The Destruction of Memory: Architecture at War* (London: Reaktion, 2006), p. 189.

²³ See Adler, pp. 261-2.

²⁴ Johann Wolfgang von Goethe, *Selected Poetry* trans. and ed. by David Luke, (London: Libris, 1999), p. 125. German text:

Natur und Kunst, sie scheinen sich zu fliehen
Und haben sich, eh man es denkt, gefunden;
Der Widerwille ist auch mir verschwunden,
Und beide scheinen gleich mich anzuziehen.

Es gilt wohl nur ein redliches Bemühen!
Und wenn wir erst in abgemeßnen Stunden
Mit Geist und Fleiß uns an die Kunst gebunden,
Mag frei Natur im Herzen wieder glühen.

So ists mit aller Bildung auch beschaffen;
Vergebens werden ungebundne Geister
Nach der Vollendung reiner Höhe streben.

Wer Großes will, muß sich zusammenraffen;
In der Beschränkung zeigt sich erst der Meister,
Und das Gesetz nur kann uns Freiheit geben.

