

SLOYD IN USA STANLEY HALL'S CRITIQUE ON SLOYD

Hans Joachim Reincke – Dr. Phil., lector, civ.-ing.

B: TECHNICAL COLLEGE WILDESHAUSEN / OLDENBURG

www.technikerschule-wildeshausen.de

P: Birkenwinkel 53 A – 26209 Hatten / Oldenburg

jo.reincke@t-online.de

Germany

At the turn of the 19th century to the 20th the Swedish sloyd system of manual training from Nääs had been acknowledged by manual trainers almost world wide, and it had been integrated into American and English schoolsⁱ. By the begin of the 20th century the sloyd system of manual training from Nääs in Sweden had been presented at world exhibitions for four times:

1. First in 1876 at the Philadelphia Centennial Exhibition,
2. 1893 at the Chicago world exhibition and
3. in 1900 at the world exhibition in Paris and
4. for the last time at the world exhibition in St. Louis in 1904.

Despite its world wide recognition Swedish sloyd had been rejected for some reasons that yet seem obscure to us today, and due to some prejudice these objections still stay prevailing ever since that time. This biased view is in some kind deterring us from perceiving the real educational significance that is set within Swedish Sloyd from Nääs in Sweden.

Stanley Hall, a scholar of international reputation, was partly responsible for this prejudgement; and as nowadays the Swedish sloyd system from Nääs comes again into a closer focus of scrutiny for its educational advantage we feel requested to show the error in Hall's biased view. Especially as a rehabilitation this is justified, as today educators and scholars in education again focus their interest towards this system that seemed to be sunk into oblivion for such a long period of time — and since the interest newly arises on an international level, Nääs-Sloyd comes in for a closer look and scientific discussionⁱⁱ.

Granville Stanley Hall (1846 – 1924) was professor for psychology and pedagogy at Clark University in Cambridge / Massachusetts; he was also president of Clark University. He began his basic studies with Kuno Fischer and Wilhelm Wundt at Heidelberg University in Germany. Hall completed his studies when he, as a student, followed Wilhelm Wundt to Leipzig, where Wundt was appointed to a chair for psychology in 1885, the first of this kind in Germany in those times. There, Hall collaborated with Wundt and studied at his psychology labs. In Leipzig, Hall became also acquainted with the educational approach of Dr. Schreber, a physician and a former leading figure in German pedagogy and social medicine in the mid of the last century. And here also, Hall came in contact with the school of Herbartians led by Eduard Ziller.

In education Stanley Hall generally supports that children would improve their development when they exercise their muscles with games and with handi-craft training. In spite of this articulation he rejects the Swedish manual training system as an appropriate device for this goal. Furthermore he advocates learning facts by rote to inculcate knowledge, and he declares obedience as a primary duty of a childⁱⁱⁱ. "Die Selbstsucht", the selfishness of a boy is to be overcome by such means, (Hall 1902, S. 5–21). In Germany, we know such terms not just only by Hall; Georg Kerschensteiner^{iv} held for them, too; and herein they are identical: They camouflage the contents of their "black pedagogy"^v with a hue of liberal and humanly

orientated rhetoric, all commonplace, and in doing so, they try to hide what they were really interested in: Education of children to unconditional obedience.

Hall showed his peculiar approach to the subject in question, sloyd, by his main œuvre: "Adolescence – its Psychology and its Relation to Physiology, Anthropology, Sociology, Sex, Crime, Religion and Education"^{vi}, and he exposed his attitude toward education of the adolescence. Actually, in order to perceive a cleared view on Hall's "Adolescence" it is recommended at first to study Hall's very last chapter in volume 2 wherein he sets out his approach toward "adolescent races and their treatment"; one should read this chapter before all the others in order to comprehend to the full the awkward racist philosophy behind this thinking.

Within the very last chapter of the two volumes on "adolescent races" he unveiled himself as a racist of the time^{vii}: From the German physician Alfred Ploetz^{viii} Hall adopted the conception of "race hygiene", what, in those days, deliberately meant the superiority of the Aryan race. Hall reached his racial climax in assuming Ploetz' idea: "Race hygiene in the large sense which culminates in human stirpiculture as an art is yet to be developed." (sic!); (Hall, 1905, 1931, p.721). If we consider that human stirpiculture^{ix} had been translated into German as "Züchtung besonderer Rassen" –which means nothing else than "breeding of particular (human) races"– then we have a true image of what is meant by Hall's use of such terms. In assessing Hall's racial attitude we should bear in mind that it was Alfred Ploetz who, in 1905, founded the "Association for Race Hygiene" (Gesellschaft für Rassenhygiene)^x in Berlin and whose policy it was – in the terms of those days – that the Aryan race was to be established as superior than others like the Semites.

When Hall discusses in detail the Swedish sloyd he firstly glorified Richard Wagner's "Deutschentum" as having overcome Christendom. And if we now take into closer consideration the German composer Wagner, who, besides his activities as an influential musician and successful composer, was politically involved with the "Anti-Jewish Association of Berlin", Hall's peculiar anticipation is to be seen in a new light: Wagner's Deutschentum was the ideological basis for Houston Chamberlains "Foundations of the Nineteenth Century"^{xi}, published in 1899 (see Köhler, 1997, p. 245). And with this book Houston Stewart Chamberlain, son-in-law to Richard Wagner, published an defamatory and anti-Semite piece of writing. We ought to be reminded that the genocide in Germany had been based on this appalling ideology and that Hitler's party gained its initiative and ideas from the Wagners in its very beginnings in the nineteenth century^{xii}. It was Richard Wagner and his kin who nourished the gory mania of the inferiority of the Semite race^{xiii}.

I do not consider Stanley Hall to be directly responsible for what happened after 1933 in Germany. But he is to be ranked among those intellectuals like Gobineau, Chamberlain et al. who sustained an anti-Semite policy that later helped to turn into a gory contempt of mankind.

What has all this to do with Swedish sloyd in America? The once famous initiators of educational sloyd from Nääs in Sweden, who disseminated sloyd in America^{xiv} and in Great Britain^{xv}, were both Swedes of Jewish-German origin: August Abrahamson and Otto Salomon. Abrahamson's ancestors emigrated 1812 from Berlin to Sweden, and Salomon's ancestry once used to be resident in Alsace and Lorraine.

Stanley Hall on Swedish Sloyd

In a more profound manner, we examine Granville Stanley Hall's reception of this unique system of workshop training, and we do this in order to understand the effects of sloyd in one of its far-reaching aspects. In doing so we intend to prevent sloyd from a distorted

presentation, since it was Hall who misrepresented that system, as we will see. And this misrepresentation is today still commonly shared. We discuss Hall's assessment of Nääs-sloyd on rational grounds: Firstly we lay out the evidence as given by Hall's literary approach toward sloyd, and secondly we indicate the peculiar circumstances of Hall's misperception, and then, thirdly, we show the plausibility of our conclusion hereafter how Hall presented educational sloyd in a distorted manner.

With his main oeuvre "psychology of adolescence" Stanley Hall explained his estimation of educational sloyd from Nääs and made a devastating appraisal of this method of manual training; but why? In answering this question, Hall discusses the growing and the functioning of the "motoric powers" (Hall) of young developing human beings. In order to support such the growing of their forces Hall generally acknowledges manual training as an appropriate means being qualified for education. Hall mentions also the "Russian Method" of work education, which he regards as rigid and uniform, not suitable for such purposes in question (Hall, 1905, 1931, p.174 - 175). In delimiting from the "Russian Method" of education he calls for a "master of art-craft" to have command on four basic aptitudes. Hall states the term of "master of art-craft" within the line of an conventional understanding of handi-craft being orientated to traditional guilds' *craftsmanship* (Hall, 1905, 1931, pp.176):

- 1) "Ability to grasp an idea and embody it."
- 2) "Power to utilise all nerve, and a wide repertory of methods, devices, recipes, discoveries, machines etc".
- 3) "Knowledge of the history of the craft."
- 4) "Skill in technical processes." (Hall, 1905, 1931, p.176)

In general Hall criticizes that in those days American Manual Training was laying too much emphasis on point 4):

"To focus on process only, with no reference to the object made, is here an almost tragic case of the sacrifice of content to form, which in all history has been the chief stigma of degeneration in education. Man is a tool-using animal, but tools are always a means to an end, the latter prompting even their invention. Hence a course in tool manipulation only, with consistent refusal to consider the product ... has made most of our manual training high schools ghastly, hollow, artificial institutions." (Hall, 1905, 1931, p.177).

And Hall details his considerations by demanding further: *"In every detail the prime consideration [of manual training concepts] should be the nature and the needs of the youthful body and will at each age, their hygiene and fullest development [...]. Each operation and each tool - the saw, knife, plane, screw, hammer, chisel, draw-shave, sandpaper, lathe - will be studied with reference to their orthopaedic value, bilateral symmetry, the muscles they develop, and the attitudes and motor habits they favour."* (Hall, 1905, 1931, p.177/178).

In point of fact we do already know all this: *"Orthopaedic value, bilateral symmetry, the muscles what they develop, and the attitudes and motor habits they favour"* as being put into educational practice with the sloyd-scheme when it came into existence. But it was just Hall who ignored these educational essentials of the Swedish sloyd-scheme despite the fact that these features had been openly discussed in America, (see Reincke (1995): "Slöjd"; see also Thorbjörnsson (1991): "Slöjden och leken"; see Whittaker (1965); and see Otto Salomon & Carl Silow (Stockholm 1894): *Kropp-Stälningar vid Snickerislöjd*, Lerum 1990 (reprint).

Directly after these remarks Hall sketches Swedish sloyd in a sharp and short manner in using just one half of a page (Hall, 1905, 1931, S.178), and finally he ends up in concluding: *"Sloyd at its best tries to correlate several series, viz., exercises, tools, drawing, and models."* (Hall, 1905, 1931, p. 178). Hereafter he asserts: *"Yet there has been hardly any attempt to justify*

either the physiological or psychological reason of a single step in any of these series, and the co-ordination of the series even with each other, to say nothing to the stages of the child's development." (Hall, 1905, 1931, S.178). This is simply not true – on the contrary: the bodily-kinaesthetic and the physiological respect is essential and crucial in manual training scheme of Swedish sloyd from Nääs; and in so far it is Hall who is to be blamed of not having had researched as it should be.

And in furtherance of his esteem. "This [sloyd /HJR], if as pat and complete as is urged, would indeed constitute on the whole a paragon of all the harmony, beauty, totality in variety, etc., which make it so magnificent in the admirer's eyes. But the '45 tools, 72 exercises, 31 models, 15 of which are joints', all learned by teachers in one school year of daily work and by pupils in four years, are over-methodic, and such correlation is impossible in so many series at once. Every dual order, even of work and unfoldment of powers, is hard enough, since the fall lost us Eden, and woodwork, could it be upon that of the tree of knowledge himself, is incompatible with enjoying its fruits." (Hall, 1905, 1931, p. 179).

Halls descends into shallow polemic and ignorance: Any dual order^{xvi} he denounced as impossible "since the fall lost us Eden"; and not even "the tree of knowledge himself" could help to practice sloyd because such "woodwork is incompatible with enjoying its fruits." And by claiming in such nature Stanley Hall has finished with Swedish sloyd from Nääs at all. Without discussing sloyd any further Hall passes over it to discuss Thomas Carlyle's writings which he introduces as an "gospel of work" (Hall, 1905, 1931, p.180). Furthermore he stresses others as "gospelers of work", essentially ranking John Ruskin, William Morris and Thomas Cobden-Sanderson. Just hereafter he comes onto the craftsmanship of Nurnberger "Meistersinger Hans Sachs", some medieval figure, and, moreover, in conjunction with all this he welcomes Richard Wagner's "Deutschenthum" that, in Hall's view, had overcome Christendom. And by a rather awkward argumentation he tries to amalgamate an ideal confluence of medieval craftsmanship of the "gospelers of work" with "racial adolescence", (Hall, 1905, 1931, p.181). And in his further conclusions Stanley Hall suggest an alternative of his own how to integrate Swedish sloyd with manual training: "The writings of the above gospelers of work not only could, and should, but will be used to inspire the manual-training high schools, sloyd and even some of the less industrial courses, but each is incomplete without the other. These books and those that breathe their spirit should be the mental workshop of all who do tool, lathe, and forge work, who design and draw patterns, carve or mold, or of those who study how to shape matter for human uses, and whose aims is to obtain diplomas or certificates for fitness to teach all such things." (sic!) (Hall, 1905, 1931, p.181).

We should read this clearly and critically: Morris, Ruskin and Sanderson were the spearhead of the Arts & Crafts-Movement during the 19th century; they referred to gothic and medieval art and artisans, which gave the group the name the "Pre-Raphaelite Brotherhood", according to their preference of the Italian style of painting before Raphael. What this association has to do with the "Deutschenthum" of Richard Wagner is not yet clear to my mind. Because of Halls amalgamation of sloyd –what kind of sloyd at all he leaves unclear– with Wagner's "Deutschenthum" and with the "gospel of work" – the way S. Hall choose – I may assume that Hall's prior rejection of educational sloyd from Nääs/Sweden is motivated by a racist, anti-Semite prejudice, as the initiators of Nääs-sloyd were either of Jewish origin, living in Sweden, and one of them was extremely successful in merchandising internationally. This reading complies with my esteem of Hall as a racist thinker.

Hall has left the level of rational debate and by his arguments he could not contribute to a rational line of reasoning. Finally he could not contribute to a reasonable evaluation of Nääs-sloyd, his statements not only simply lack of being well thought-out, I think this he is in the wrong. Moreover, in referring to the "gospelers of work" like Morris, Ruskin et al., Hall tried to stem the tide of the modern age^{xvii} which was characterised by an increasing industrialisation of work. Hall commits a fixation towards a medieval culture of work that had never existed in the way Morris et al. had perceived it by their wishful thinking. In doing so Hall denies a modern understanding of civilization and education which foster a self-determined way of life and which is based on an appropriate means of education.

As we discuss Stanley Hall's rejection of Swedish sloyd we go into details of a nation-wide reception of that sloyd from Nääs as being spread into USA, and this was unique in the history of pedagogy and in manual training. But, combined with the seeping of sloyd into the American high-school and educational culture, we also find the "Russian Method" by Victor Della Vos having been adopted in American Manual Training. This "Russian Method" of Manual Training had coined – like Swedish sloyd from Nääs – the American work and vocational education; (for further details on the "Russian Method" see Günter Ploghaus in ZBW 1/1991 and see Charles Ham: Manual Training: The Solution of Social and Industrial Problems, New York, 1886).

New outlooks

Recent results in research of the history of manual training do verify these statements in the above: There are sloyd-schools still operating in Minnesota, in Costa-Rica and on Cuba, and in the field of industrial or work education we still do find relicts of the once famous "Russian Method", even in Germany. But, the process of the blending of Russian-American and Swedish-American work education into a new kind of its own has not come to an end yet. Notwithstanding, we may now commonly agree with seeing Hall's approach toward manual training and its educational psychology as anachronistic and rationally out of joint.

However, the philosophical and psychological accomplishment of William James^{xviii}, a contemporary of Hall, comes into focus again and his foundations in pragmatism is being newly discussed^{xix}. His esteem for manual training the Swedish way is more agreeable and within the line of psychologically reasoning:

"...as shop work engender a habit of observation, a knowledge of the difference between accuracy and vagueness, and an insight into nature's complexity and into the inadequacy of all abstract verbal accounts of real phenomena, which, once wrought into the mind, remains there as lifelong possessions. They confer precision; because if you are doing a thing, you must do it definitely right or definitely wrong." — "... for when you express yourself by making things, and not by using words, it becomes impossible to dissimulate your vagueness or ignorance by ambiguity. (sic!) They beget a habit of self-reliance; they keep the interest and attention always cheerfully engaged, and reduce the teacher's disciplinary functions to a minimum." — and James explains his explicit appreciation by which it casts new light on Nääs-Sloyd: "Of the various systems of manual training, so far as woodwork is concerned, the Swedish Sloyd system, [...] seems to me by far the best psychologically considered. Manual training methods, fortunately, are being slowly, but surely, introduced into all our large cities; but there is still a immense distance to traverse before they all shall have gained the extension which they are destined ultimately to possess." (William James, in: Hand & Eye, No.83/1899, p.361 and Talks to Teachers, 1958, pp.39-41).

William James published his claiming as early as in 1898 in Atlantic Monthly (Boston) and we quoted this statement from a report in the journal Hand & Eye by which he had it published in 1899. In 1908, additionally to this article, he issued this very testimony in "Psychologie und Erziehung - Ansprachen an Lehrer" in Germany and further James repeated his esteem in "Talks to Teachers on Psychology" in 1909 and by a reprint in 1992^{xx} with which he added a general admonition to teachers to recognize the children's inclination for self-activity and self-respect. We, as educators of today, remain requested in doing alike.

Outline on Stanley Hall's "gospelers of work".

THOMAS CARLYLE (1795–1881), was an essayist and a freelancing author from Scotland.

With his writings he tried to combine aspects of German idealism with the spiritual tradition of Puritanism. His two main books are:

- 1 "*Sartor Resartus*" (1836), German issue: "*Der geflickte Flickschneider*" (1882) is an autobiography emphasising anti-romantic tendencies; Carlyle puts much value on the moral influence of work.
- 2 "*On Heroes, Hero-Worship and the Heroic in History*", herein Carlyle declares his anti-democratic and aristocratic weltanschauung. And here already we find an arsenal of backward oriented myths and idealism with which he articulates a retrospective vision of higher values and virtues.

To give an example of a today appreciation of Th. C.: "It was ...Carlyle ...who discerned the existence of 'heroes', whom he summoned to take command of English society and rescue it from anarchy, by drilling."; quoted from :

Honderich, Ted (1990): *Conservatism*; , (p.47), London, New York, Toronto: Penguin.

WILLIAM MORRIS (1834–1896), an English poet, painter and designer, socialist and like Ruskin a follower of the pre-Raphaelite; Morris launched the *Arts- and Crafts-Movement* and is regarded as the originator of Youth-Style. He intended to revive art out of traditional craftsmanship. His design of furniture, carpets and glass-paintings in churches was founded on Gothic art. With his poetry, odes and ballads, he praises of the realm of Nordic saga and medieval knighthood. However, some connection between *English Sloyd* and *Arts & Crafts* could not be traced yet. See:

Kirsch, Hans-Christian (1996): *William Morris – Ein Mann gegen die Zeit - Dichter, Buchkünstler, Designer, Sozialreformer*; (München 1983) Köln.

JOHN RUSKIN (1819–1900), English author, art-critic and social reformer; he thought the pre-Raphaelite period to be exemplary. His quest for reinforcing arts in a religious and moral manner was highly appreciated by contemporaries; he wanted to create a confluence of art with a sound craftsmanship to counterbalance the increasing industrialisation of society. From this point of view he can be regarded as an educator. He is seen as one of the founders of the Labour Party in Great Britain. See:

Ruskin, John (1993): *Werke in 15 Bänden [Œuvre in 15 volumes]*, Wolfgang Kemp (Edt.) Vol. 1, Dortmund / Germany.

THOMAS JAMES COBDEN-SANDERSON (1840–1922) was solicitor; he had trained himself to book-binding, (he maintained decisively the "*Do-it-yourself*"-method). Sanderson founded the Dove's Press in London and he published one single book only: "*The Ideal Book*", (German issue: "*Das Ideale Buch*", 1922) by which he describes his understanding of designing and the making of a well-done book. As a reminiscence Sanderson's little book of just fourteen pages has been published again in Germany in 1989; see:

Cobden-Sanderson, Thomas James: *Das ideale Buch oder das schöne Buch – Eine Abhandlung über Kalligraphie*; 14 pages, Bayreuth: Bear Press, 1989

References and remarks:

- ⁱ Whittaker, D. J.: *The Slöjd System – A Scandinavian Contribution to Education with Special reference to Britain*; thesis (unpublished manuscript), University of Liverpool, 1965
- ⁱⁱ See conference-report on *International verwirklichte Reformpädagogik* at Greifswald University in October 1996 (report pub. 1997) and
see conference-report on *Sloyd Facing the 21st Century – The First International Symposium of Handicraft Teaching Nov. 21–26-1994 in Pinar del Rio, Pinar del Rio, Cuba, 1995*
- ⁱⁱⁱ Hall, G. Stanley (1902): *Ausgewählte Beiträge zur Kinderpsychologie und Pädagogik*; Bd. IV: *Internationale Bibliothek für Pädagogik und deren Hilfswissenschaften*; Altenburg.
- ^{iv} Kerschensteiner, Georg (1901): *Staatsbürgerliche Erziehung der deutschen Jugend*, in *Kerschensteiner, Georg – Berufsbildung und Berufsschule – Ausgewählte pädagogische Schriften*, Vol. 1, (Ed.) Wehle, Gerhard (1966), Paderborn:
„Der Wert unserer Schulerziehung [...] beruht [...] vielmehr in der konsequenten Erziehung zu fleißiger, gewissenhafter, gründlicher, sauberer Arbeit, in der stetigen Gewöhnung an unbedingten Gehorsam und treue Pflichterfüllung, und in der autoritativen unablässigen Anleitung zum Ausüben der Dienstgefälligkeit.“, op. cit. 1966, p.34.; „*The value of our school-education lies [...] moreover in a consequent training towards industrial, conscientiously, painstakingly and soberly working, [... and it lies in the] permanent habit of unconditional [blind] obedience and devoted fulfilment of the duty, and [... and it lies in the] in the permanently authoritative direction to exercise the required assiduity.*“ translated by HJR.
- ^v see Rutschky, Katharina (Ed.) (1977): *Schwarze Pädagogik [Black Pedagogy]*; Berlin:
- ^{vi} Hall, Granville Stanley (1905/1931): *Adolescence – its Psychology and its Relation to Physiology, Anthropology, Sociology, Sex, Crime, Religion and Education*, Vol. I and II, London, New York.
- ^{vii} Hall: *Adolescence...*; Chap. XVIII: *Adolescent Races and their Treatment*, Vol. II pp.649-735.
- ^{viii} Ploetz, Alfred: *Tüchtigkeit unserer Rasse und der Schutz der Schwachen*, Berlin, 1895
- ^{ix} Muret-Sanders: *Encyclopædic English-German Dictionary*; Langenscheidt's, London, Berlin, New York, 1910; see entry: *stirpiculture*, p. 862.
- ^x Meyers Grosses Personenlexikon: entry: *Ploetz, Alfred*; (Edt.) Bibliographisches Institut, Mannheim, Zürich, 1968.
- ^{xi} Chamberlain, Houston Stewart: *Die Grundlagen des Neunzehnten Jahrhunderts*, München, 1899, lastly issued in Germany in 1938.
_____.: *Foundations of the Nineteenth Century*, Howard Fertig Pub., London, New York, 1968
- ^{xii} See: Köhler, Joachim: Köhler, Joachim (1997): *Wagner's Hitler – Der Prophet und sein Vollstrecker*, München: Karl Blessing Publ.
- ^{xiii} See: Wagner, Gottfried (1997): *Wer nicht mit dem Wolf heult – autobiographische Aufzeichnungen eines Wagner Urenkels*, [No howling with Wolf* – autobiographical notes by Wagner's great grand son]; Köln: NN.
* *Wolf* was the sobriquet by which the Wagner family used to call Adolf Hitler. While being in imprisoned, Hitler wrote *Mein Kampf* on Winifred Wagner's private writing paper provided by Winifred Wagner for this purpose only.
According to Richard Wagner's own statements he used his music as a propaganda instrument in order to transplant his racist philosophy into the people's mind. See:
Wagner Dämmerung - Kritische Wagner Dämmerung mit Gottfried Wagner; VHS-Video sequence No. 8027696, JPC-Video-retailer, St.-Georgsmarienhütte, Germany
- ^{xiv} Hansson, Kenneth Sigurd (1966): *Sloyd, Pre-Vocational, Vocational and Technical Education in Sweden*, unpublished doctorate thesis (dissertation) at Graduate School of the University of Missouri, Columbia, Missouri.
- ^{xv} Whittaker, D. J. (1965): *The Slöjd System – A Scandinavian Contribution to Education with special References to Britain*, unpublished thesis (Master of Arts) at University of Liverpool.

-
- ^{xvi} Reincke, Hans Joachim (1995): *Sloyd – Die schwedische Arbeitserziehung in der internationalen Reformpädagogik*; Frankfurt am Main, Bern, Berlin, Paris: Lang. see chapt.: „Die duale Progression“ [*Dual Progression*], pp.137.
- ^{xvii} Eksteins, Modris (1989): *Rites of Spring - The Great War and the Birth of Modern Age*; Boston. Eksteins describes the controversies and the frictions of an radically epochal change which ended up in the eruption of the Great War 1914–1918. Many contemporaries of that time refused to face these changes in economics, society and in civilisation; instead of, many a people preferred a more backward orientation to medieval times, romancing its imaginary values and its supposed virtues. According to his own preferring of this understanding of medieval time, Stanley Hall is to be reckoned to that faction having had adapted that retrospective view of the world. See also:
Hughes, Thomas, P. (1989): *American Genesis – A Century of Invention and Technological Enthusiasm 1870 - 1970*; Philadelphia.
Hughes is Mellon-Professor on history and sociology of science at Pennsylvania University in Philadelphia; he also holds a chair at Royal Institute of Technology in Stockholm, Sweden. Hughes key-œuvre focuses on technological innovations that constitutes modern age and civilisation in America. See also:
Mitcham, Carl: *Thinking through Technology – The Path between Engineering and Philosophy*; Chicago, London, 1994
Mitcham encompasses the history of technology, work and philosophy since the very beginning of the industrial revolution. He shows how ideas, concepts and inventions had been processed and interchanged to and fro the Old [Europe] and New World [the Americas].
Eksteins, Hughes and Mitchum should to be read as supplement to each other in order to comprehend the huge and dynamic gestalt of modern age whose beneficent and irritating effects have not ceased up till now and whose radically changing process has not come to an end yet.
- ^{xviii} William James (1842 –1910); since 1876 he hold a chair for philosophy and psychology an at Harvard University; with Charles S. Peirce he ranks as the founder of American pragmatism, see also:
Marcuse, Ludwig (1959): *Amerikanisches Philosophieren – Pragmatisten, Polytheisten, Tragiker*; (Hamburg) Zürich, 1994
- ^{xix} **For today's reception of William James see:**
Gardner, Howard (1985): *Frames of Mind – The Theory of Multiple Intelligences*, Basic Books, pp. 237
- ^{xx} James, William: *A Voluntary Testimony*, in: *Hand & Eye*, (Zt.) Vol. 7, London, Sept. 15th, 1899, N^o 83, see pp.360–361; see also:
_____ (1908): *Psychologie und Erziehung – Ansprachen an Lehrer*; Leipzig, p.23
_____ (1899): *Talks to Teachers on Psychology*; Henry Holt Pub., New York, p.35; newly edited by Norton Publ., New York, (1958) 1992, pp.39-41

Further references for studies on the subject:

- Ham, Charles (1886): *Manual Training: The Solution of Social and Industrial Problems*, New York.
- Hartman, Sven G. / Thorbjörnsson, Hans / Trotzig, Eva (1995): *Handenspedagogik– Kulturarv och utveckling i skolslöjden*; Skapande Vetande Nr. 29/95, Linköpings universitet
- Kananoja, Tapani (1995): *Technology Education in the Nordic Countries*, in: (Edt.) David Layton(1995): *Innovations in science and technology education*, Paris: UNESCO–Publishing.

Ploghaus, Günter (1991): *Victor Della Vos, sein 'Russisches System' und sein internationaler Einfluß auf die Werkstatt-Pädagogik*; in: *ZBW – Zeitschrift für Berufs- und Wirtschaftspädagogik*, Heft 1/1991, Edt. Rolf Dubs et al., Franz–Steiner-Verlag, Stuttgart / Germany

Reincke, Hans Joachim: *Nääs Sloyd – Die erste Arbeitsschule in der internationalen Reformpädagogik*©®; [*Nääs-Sloyd – The First Manual Training School in International Reform-Pedagogy*]©®, publication in preparation, protected by copyright ©® 1996/'99.

Salomon, Otto and Silow, Carl (1894): *Kroppss-Stälningar vid Svensk Pedagogisk Snickerislöjd*; (Stockholm), reprint by August Abrahamson's Foundation Nääs, Lerum 1990,

Thorbjörnsson, Hans (1990): *Nääs och Otto Salomon - slöjden och leken*; Helsingborg: OrdBildarna

Thorbjörnsson, Hans (1992): *Slöjd och lek på Nääs - en bildkrönika om ett kulturarv*, Helsingborg: OrdBildarna

Trotzig, Eva (1988): *Otto Salomon – en svensk pedagog som fått internationell betydelse*; Skapande Vetande Nr. 9/88 Institutionen för Slöjd, Linköpings universitet
