

The Japanese “Miracle”

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The purpose of this paper is to tell the story of a “miracle” that took place in Japan following World War II (WWII), causing it to literally rise from the ashes of the war to become a leading world economy. The paper is organized as follows:

1. Introduction
2. MacArthur sets up shop (SCAP)
3. Homer M. Sarasohn arrives
4. Charles W. Protzman arrives
5. The CCS Seminars
6. The Aftermath
7. Summary and conclusions

1. Introduction

Dr. W. Edwards Deming had a great influence on the Japanese after WWII in the area of quality. In fact, The Deming Prize was established in December 1950 to recognize Japanese companies for improvements in quality. However, even before Deming’s rise to fame in Japan, two American engineers, Homer M. Sarasohn and Charles W. Protzman,¹⁾ played a pivotal role in helping Japanese industry recover by teaching Japanese industrialists the tenets of good

1) Although not as directly involved as Sarasohn and Protzman, a third person was also important in promoting the work of these two engineers, Frank Polkinghorn. As will be seen, Polkinghorn helped break a bureaucratic logjam to let them carry out the “miracle.” Hopper & Hopper (2007) call them “the three wise men.”

management emphasizing quality control.

It is ironic that Japan, with all its considerable military might, could not dominate East Asia as it tried to do before and during WWII, yet after the war and in a relatively short time was to become an economy second only to the country that defeated it. This is the story of how Japan got started, with Sarasohn and Protzman's help, on that road to economic "domination," seemingly against all odds.

It is also a story of how what the Japanese learned about good management from Sarasohn and Protzman came to not only benefit the Japanese but also much of the rest of the world.

2. MacArthur Sets Up Shop (SCAP)

With the dropping of atomic bombs on Hiroshima on August 6, 1945 and then, three days later, on Nagasaki, Japan finally gave up and formally surrendered on September 2.²⁾ In anticipation of Japan's surrender, the forerunner of SCAP,³⁾ Army Forces in the Pacific (AFPAC), was established in April 1945 with General MacArthur designated as its Commander in Chief (CINCPAC). According to *Reports of General MacArthur*,⁴⁾ p. 67, MacArthur was designated Supreme Commander for the Allied Powers (SCAP) on August 14, 1945. On October 2, 1945 the SCAP GHQ was established using the general staff sections of AFPAC to also serve the military staff needs of SCAP. On that same day ten special staff sections were activated to cover

2) The initial surrender occurred on August 14, 1945 with the acceptance by Japan of the Potsdam Declaration. On the following day Emperor Hirohito announced the surrender on the radio (Wikipedia, http://en.wikipedia.org/wiki/Surrender_of_Japan).

3) Supreme Commander for the Allied Powers but used to also mean the organization itself; i.e., the General Headquarters (GHQ).

4) Specifically this part: *MacArthur in Japan: The Occupation: Military Phase*, Volume I Supplement (1950). Hereinafter "*Reports*."

various areas that needed attention vis-à-vis the effective running of the occupation such as education, health, government, etc. (*Reports*, pp. 75 & 76). Among these special sections was the Civil Communications Section, also known as CCS. *As will be seen, CCS came to play a key role in Japan’s recovery.* Figure 1 (see pages 129/130) shows the GHQ organization as it was on December 31, 1947. SCAP continued to exist until the peace treaty with Japan came into force in 1952.

The task facing SCAP was enormous. As described by the website *japan-guide.com*:

After World War II had ended, Japan was devastated. All the large cities (with the exception of Kyoto), the industries and the transportation networks were severely damaged. A severe shortage of food continued for several years.⁵⁾

Where to begin? It is worth noting here the significantly different approach MacArthur took from what might have been expected. Rather than go in with a heavy hand and completely take over the existing Japanese government, MacArthur decided to use it as a partner in furthering the goals of the occupation. For this he was seen as being too “soft” by critics prompting him to make a press release on September 14, 1945 that assured these critics he had the situation well in hand:

Economically and industrially, as well as militarily, Japan is completely exhausted and depleted. She is in a condition of utter collapse, her governmental structure is controlled completely by the occupation forces and is operating only to the extent necessary to insure such an orderly and controlled procedure as will prevent social chaos, disease and starvation

5) As this is written one can get some idea of what it must have been like from the terrible devastation recently suffer from the March 11, 2011 earthquake/tsunami in northeastern Japan.

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(*Reports*, p. 56).

Using the Japanese government, MacArthur quickly moved to reform Japan from its previous authoritarian militaristic structure:

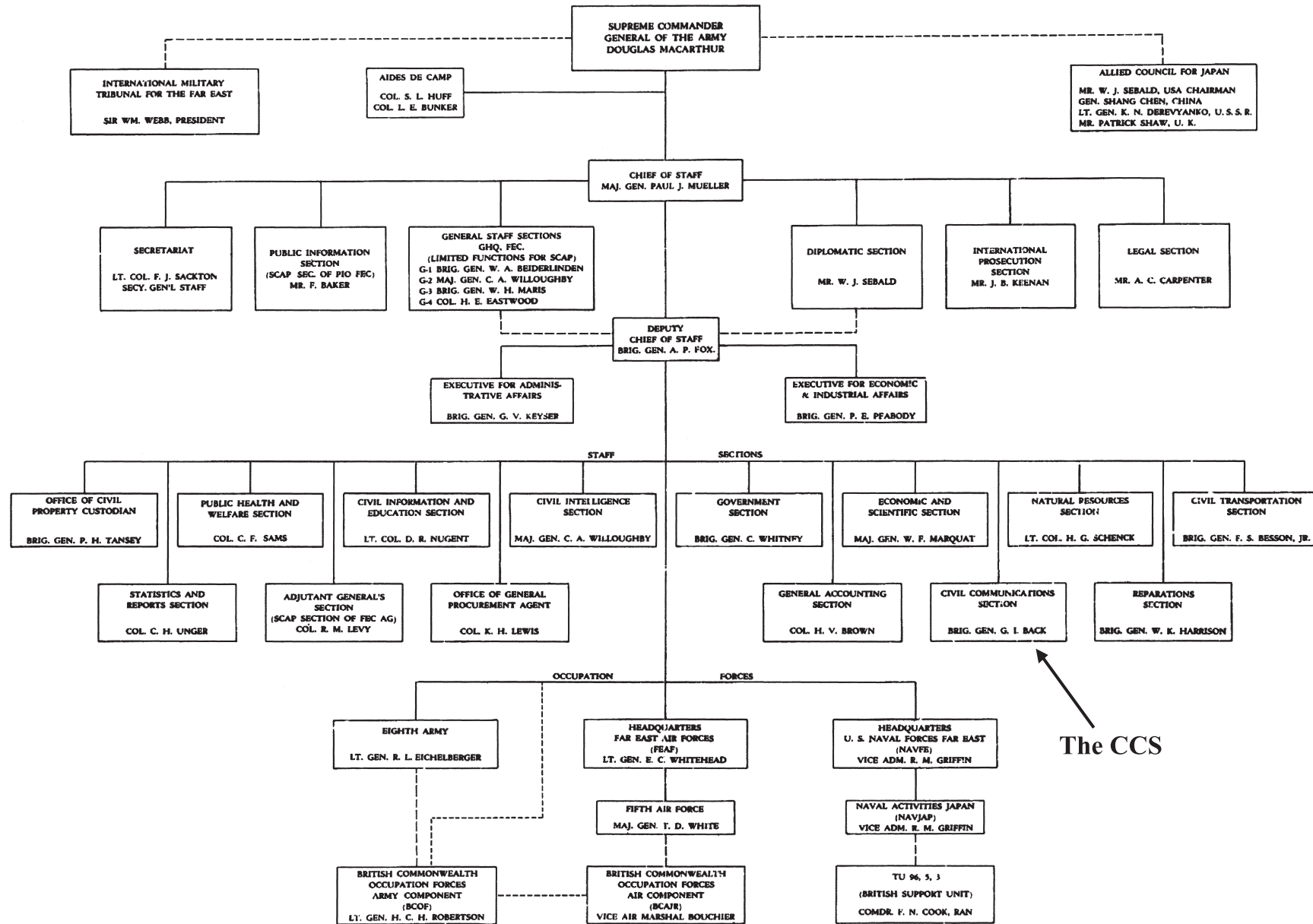
Beginning with the famous “Bill of Rights” directive in the second month of the Occupation, SCAP had issued a steady stream of orders to the Japanese Government designed to destroy those influences in Japan which had led her into war, and to establish a democratic form of government. Political prisoners were liberated; the secret police force was dissolved; Shinto religion was separated from the state; the Emperor renounced his divinity; women’s suffrage was promulgated; the educational system was revised; trade unions were legalized; and scores of other political and social reforms were launched (*Reports*, p. 57).

These moves along with the immediate aid brought in to alleviate hunger and steps taken to ensure an orderly occupation essentially free of any criminal activity on the part of the occupation forces soon caused the majority of the Japanese people to revise their opinion of Americans. Again from *Reports*, p. 51:

They [the Japanese] had accepted the Americans cautiously and were eventually impressed by the complete absence of systematic looting and violence which many had fully expected. The one factor which had an immediately noticeable effect on the people of Japan was the spontaneous generosity of the Americans.

It is indeed a tribute to MacArthur that he had the wisdom and foresight to treat the Japanese people this way and, in effect, emphasize the “giving them a fishing pole” vs. only “fish” so they could just that much faster begin becoming a productive and positive force in the global economy versus a drag on it. Of course that this proved true is now history.

Figure 1. General Headquarters, Supreme Commander for the Allied Power (SCAP). December 31, 1947



The CCS

3. Homer M. Sarasohn Arrives

Barely eight months after Japan’s surrender, Homer Sarasohn, a 29-year-old American radar/radio engineer, arrives on the scene in April 1946. Summoned to Japan by SCAP, in a note in Fisher (2008), “Sarasohn identified his pre-Japan experience in managing a rapid transition from prototype micro transmitters to production models as being a key reason why Douglas MacArthur brought him to Japan to establish the radio communications industry” (p. 22).⁶⁾

One of SCAP’s biggest concerns in those early post-war days was having a way to quickly let the people of Japan know what was going on since it would be implementing what amounted to a major cultural shift from a country previously dominated by essentially a military dictatorship. The existing public communications was almost nonexistent and both the telephone and radio systems had to be restored. In particular the best way to “get the word out” would be to build a viable radio system. This then was Sarasohn’s goal. But the problems were staggering. In his own words:

Factory sites had to be cleared of rubble so that shacks could be put up to house production machinery and workers. Machinery had to be installed, repaired and refurbished. Workers had to be recruited and trained. Supplies and raw materials had to be located and brought in. Supervisors and managers had to be chosen, some almost at random, and put in place. Most of them were strangers to their jobs... .. more accustomed to following orders, rather than giving direction... They had to be instructed on a day-to-day basis how to set up, run, and manage a mass production system. And,

6) It seems worth noting that Sarasohn’s initial contact with the U.S. Army was when working at the famous Rad Lab (Radiation Laboratory) at MIT that developed most of the microwave radars used in WWII and the first worldwide navigation system, LORAN.

that is what we in CCS did (Sarasohn, 1997, p. 104).

CCS, the Civil Communications Section mentioned above, was one of the many staff sections under SCAP (see Figure 1). Sarasohn was mainly assigned to do three things: supply radios to the Japanese, set up a reliable nation-wide telecommunications facility, and help revive the Japanese communications industry; Sarasohn would be concentrating mostly on the task of getting radios into the hands of the Japanese people with others in CCS working on the second task. Sarasohn felt if they “were successful in accomplishing the first two, the other would take care of itself” (p. 103).

Soon realizing the need to improve the dismal quality of radio receiver production Sarasohn called a meeting of plant managers. The purpose of the meeting was to get them to begin thinking on their own about the problem and how it might be solved: i.e., “I wanted to get them involved in *participative management*.” Sarasohn asked them to tell him, in their opinion, the reason for the poor quality problem and what could be done about it.

At first there was dead silence. They seemed shocked and surprised. No one had ever asked for their opinion on anything before. I put my question to them again. Then, they all got up and moved down to the far end of the table. They began a discussion among themselves (p. 105).

It turned out they were trying to come up with an answer *that would please Sarasohn*, not really provide an honest response. This led Sarasohn to begin a series of meeting with these managers requiring them to begin indentifying operating problems within their own companies and coming up with solutions. And, in Sarasohn’s words:

The list was imposing: workplace cleanliness, scheduled machine maintenance, on-time work flow, effective job training, realistic quality standards, and much more. Each of these items called for careful analysis, timely decisions, corrective action and, above all, management follow-

through (p. 105).

The idea was to get the managers to understand and practice what Sarasohn called *progressive management*:

- *Commitment* to the defined goals and spirit of the enterprise.
- *A personal sense of Ownership* of and in the organization.
- *Feedback*, up, down and across the lines of the organization... (p. 106)

Although still not without problems, Sarasohn states that “by 1948, the communications industry... ...seemed well on the road to recovery” (p. 106). However to show all was not roses yet, Sarasohn recounts a visit he had to a company he had assigned to design and build something⁷⁾ for NHK, Japan’s principle radio broadcaster: “the work place was dirty, parts were strewn about, the design [of the equipment] was only partly done and, at that, it seemed crude.” On top of that “neither the president nor the chief engineer was present” (p. 106). Sarasohn walked out in disgust and was about to take the job away from them when the president and chief engineer soon showed up at his office asking what they could do to change things. Obviously they made a turnaround, as this operation was the beginning of the Sony Corporation.

4. Charles W. Protzman Arrives

Two and one half years after Sarasohn arrived in Japan, another engineer arrived in November 1948 to work in the CCS of SCAP, Charles Protzman. Protzman was on loan from Western Electric, the manufacturing arm of AT&T. In his own words (Protzman, 1950), he was expected to “act in the capacity of a technical advisor to SCAP and the Japanese communications manufacturers on engineering and production problems relating to the apparatus, equipment, wire,

7) A sophisticated audio-mixing console that, with Sarasohn’s threat of taking the order away, caused an excellent console to be completed on time (Hopper & Hopper, 2007, p. 118).

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and cable” (p. 1).⁸⁾

Since communications equipment production seemed to be “on the road to recovery” by this time, and thus not requiring so much direct involvement by the CCS, Sarasohn tells of “two new concepts” the CCS adopted about this time: quality certification and management qualification. To handle quality certification Sarasohn setup a national electrical testing laboratory in cooperation with the Japanese managers and engineers. The idea was “to make each manager individually responsible for the quality of his product and his function” (Sarasohn, 1997, p. 107).

The problem of “management qualification” would be tackled definitively towards the end of 1949 through a joint effort on the part of Sarasohn and Protzman. That there was a still a problem is well illustrated by both Sarasohn and Protzman. Sarasohn, speaking of the “junior level managers [who] had been squeezed into senior level positions”:

By and large, they had responded admirably to the challenge. They were becoming increasingly effective. Nevertheless, it was obvious there was no depth to the available resource. Moreover, the cultural influence of the feudal environment from which they had emerged was still quite evident. It was clear to us that an intensive management training course was needed (Sarasohn, p. 107).

And, in Protzman’s words:

I found that while specific suggestions or ideas were carried out to the letter, no initiative was shown by the Japanese in applying the principles underlying these ideas to other comparable situations even in the same factory (Protzman, 1950, p. 1).

8) This reference, Protzman’s end of tour report to AT&T, amazingly never mentions Sarasohn by name although Sarasohn was every bit as involved in the justification for and development of the CCS seminars (soon to be discussed).

To confirm this view they both held that something was needed to improve the quality of the management, a survey was undertaken. According to Protzman, six representative companies in the communications industry were selected. Taking about two weeks for each company Protzman and Sarasohn dug into every facet of their management operations starting with:

...the distribution of functions and responsibilities; the extent to which authority was delegated; the extent to which sound controls were recognized and applied; the nature and effectiveness of organization and structure; the gaps or duplications which might cause inefficiency or conflict; the fundamental management concepts (Protzman, p. 3).

Following this a more detail examination was made of the company’s accounting, engineering, manufacturing, supervisory effectiveness, marketing, and labor relations. To give some idea of the detail, here is how Protzman described what they typically looked at in the area of manufacturing techniques: “program planning, scheduling, labor efficiency, material usage, scrap control, cost control including overhead, process control, inspection, maintenance, working conditions, safety, etc.” (p. 3).

Their findings could be summarized from Protzman (pp. 3–4) as follows:

- A lack of basic and consistent policies.
- Haphazard organizational structures.
- Failure to delegate authority sufficiently downward.
- Jobs not well defined.⁹⁾
- Management tools (e.g., instructions, personnel policies, etc.) “almost completely lacking.”
- Inadequate accounting and cost structures and methods.¹⁰⁾

9) As Protzman (p. 3) put it: “Few lower supervisors knew what their job encompassed and fewer yet had any training or managerial background.”

10) So “profit and loss could [not] be related to the specific function, products or ↗

However, as Protzman put it, the most significant problem was “the lack of real management leadership.” It is most telling that due to this lack of leadership “What was needed was a feeling on the part of all the employees *that they were making a contribution beyond the mechanical performance of job to the well-being of the company*” (p. 4, emphasis added).¹¹⁾

Having laid this groundwork, Sarasohn and Protzman wrote a detailed Industry Division (of CCS where they worked) memorandum for the record (MFR) dated July 27, 1949 with this subject: “A Proposal for a Management Training Course for the Communications Manufacturing Industry.” The five-page MFR stresses the need for the manufacturing arm of the communications industry to, in effect, catch up with the research and development (R&D) and operations arms. According to the MFR the latter two—government agencies aided by CCS—were functioning well at this time. However, the manufacturing arm, consisting of “over 300 competitive privately owned companies,” still suffered from not understanding “the fundamental principles of quality control and sound economic management.”

The MFR goes on to propose three possible solutions:

- Provide the findings of the survey to the Japanese and let them work out the solution—would probably take a long time.
- Provide the findings of the survey to the Japanese government and, aided by CCS engineers, let it work out the solution. However this could place the government in a position of having too much influence over the private companies.

↘ operations responsible for the conditions.” This meant effective correction action could not be taken.

11) It is apparent that, even with all the progress so far, there was still a long way to go in getting the Japanese managers to practice the kind of “participative” management Sarasohn had spoken of before.

- Working with the Manufacturers Associations, prepare “training programs designed to correct the present weaknesses in industry.”

The MFR then provides several reasons for choosing the third alternative. Attached to the basic MFR is a detailed six-step program for carrying out the proposed training program including a Gantt chart schedule. This MFR was “noted” by the Director of the Industry Division of CCS¹²⁾ and SCAP’s Deputy for Telecommunications, a W. L. Wardell.

Curiously, only a short time later, a second Sarasohn and Protzman MFR dated August 6, 1949 was published with the subject: “The Need for a Management Training Course in the Communications Manufacturing Industry”—this time from the Research and Development Division. This three-page memo was devoted entirely to justification of the proposal set forth in the July 27th Industry Division MFR and officially noted by a Frank Polkinghorn, the director of the R&D Division. Also Sarasohn and Protzman are shown as “Res & Dev” engineers.¹³⁾ This is an indication that perhaps there were some problems getting the proposal approved by the Industry Division. In fact, Hopper (1982) quotes the following from Protzman:

We were able to start the survey [of Japanese companies] with the agreement of our [Industry Division] immediate superior. There was, however, continual resistance from him¹⁴⁾... ..Then fortunately there was a change. Our boss disappeared, and Frank Polkinghorn took over at the end

12) From the signature, it appears to have been noted “for” the Industry Division director by another person so perhaps the Industry Division director slot was vacant or he was not that interested in such a proposal.

13) Kenneth Hopper email of October 12, 2011 confirmed from prior direct contact with Protzman that Sarasohn and Protzman were reassigned to Polkinghorn’s R&D Division.

14) This may help explain the previous footnote about the proposal MFR not being noted directly by the Industry Division director.

of June 1949, adding us to his duties as Director of the Research and Development Section.... (p. 19)

So apparently Polkinghorn assumed the additional duty of director of the Industry Division and was the catalyst needed to get the training program off the ground. As Hopper (1982) put it Polkinghorn "...liked [the idea], found it fully in line with SCAP policy, and 'against the kind of resistance you get to any new idea in any bureaucracy' pressed SCAP for approval to mount the [training] seminars." Hopper goes on to say "Protzman is convinced that, without [Polkinghorn], the seminars would never have been presented" (p. 20).

Indicative of the resistance Sarasohn and Protzman experienced is a story Sarasohn tells of how the issue of presenting such training to the Japanese was objected to by the large and powerful Economic and Scientific Section (ESS) to the point where it had to be decided by MacArthur himself. This happened occasionally on matters regarded as very important in which case the matter would be settled in what SCAP staff called 'a floor show.' It took place in a large room outside MacArthur's office. Each side was given twenty minutes to present their arguments. First the ESS presented the case against the seminars.¹⁵⁾ Then Sarasohn presented the case for. "MacArthur sat at his desk," Sarasohn remembered, "smoking his corncob pipe, saying not a word, the expression on his face never changing. Suddenly he got up and walked to the door to his office, still without a word. I thought, 'I've blown it.' Then MacArthur turned, stared at me, said 'Go do it' and walked out" (Kenneth Hopper record of interview with Sarasohn).

5. The CCS Seminars

There were two identical management-training seminars, one in Tokyo

15) ESS argued that giving too much help to the Japanese would make them too competitive with the U.S.

running from September 26, 1949 until November 18, 1949 and the one in Osaka immediately following from November 21, 1949 until January 20, 1950. According to Fisher (2008) they were “...for top management only;¹⁶⁾ no substitutes were permitted. As planned, the course ran for 4 hours each day, 4 days a week, with homework each night” (p. 9). Sarasohn and Protzman were the presenters and Polkinghorn introduced each seminar.¹⁷⁾

Because they could not find any text suitable¹⁸⁾ for the unique needs of the course Sarasohn and Protzman wrote one. As Hopper & Hopper (2007) told it:

The two engineers retreated for two and a half months to a quiet and rundown hotel in Osaka that had been taken over by the US Army for officers’ rest and recreation. No noisy parties were permitted and female guest were excluded—even wives (p. 120).

Sarasohn (1997) describes the “CCS Manual” this way:

It is not a philosophical or academic treatise. It lays a practical and pragmatic foundation for progressive management. Protzman’s half of the book covers such subjects as manufacturing engineering, cost control, factory layout and inventory management. My half deals with management policy formation, long range strategy and planning, organizational structures, research and product development and quality control. Statistical quality and process control occupied more space in the book and more time in the lectures than any other subject (p. 108).

And so the CCS seminars commenced in Tokyo on September 26, 1949.

16) Some of the companies represented included Hitachi, NEC, Toshiba, Sumitomo Electric, Matsushita Electric, and Sanyo Sharp (or their predecessor companies).

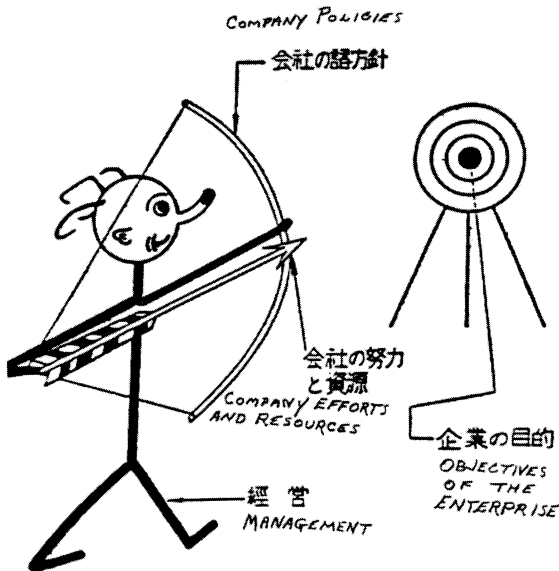
17) According to Fisher (2008, p. 9) Sarasohn taught in Japanese—most impressive given how difficult it must have been to learn the language in his spare time. This is probably an indication of just how devoted Sarasohn was to his job. Also all indications are that Protzman was equally devoted and hard working.

18) Protzman (1950) cites three reasons for this on pages 4–5.

Company policy was one of the first areas addressed including the fundamental question of why the company existed. When called upon by Sarasohn to “...recite the basic beliefs, the fundamental purposes and goals of their organizations” only one of the 24 senior executives responded—“all the others were stunned into silence when they realized they had no answer” (pp. 108–109). Figure 2 was used in the seminar to show the importance of having a company policy. In the CCS Manual, entitled *The Fundamental of Industrial Management*, (Sarasohn & Protzman, 1949) the figure is explained this way:

Making a clear statement of the objective of the enterprise is like providing a target for a man shooting an arrow with a bow. [Figure 2] shows such a man who represents company management holding a bow which represents

Figure 2. The objectives of the enterprise (from Sarasohn & Protzman, 1949, p. 177)



THE POLICIES CREATED BY MANAGEMENT
MUST DIRECT THE EFFORTS AND RESOURCES OF THE COMPANY
TO A DEFINED TARGET – THE FUNDAMENTAL OBJECTIVES OF THE ENTERPRISE

company policies and an arrow which represents the total efforts and resources of the company. If no target is provided for management (the man), toward which company efforts and resources (the arrow) can be aimed and directed, company policies (the bow), no matter how good they may be will be utterly useless. But altogether, policies, efforts and resources and ultimate purpose to which they are to be put are all part of a single picture. Any one part has a definite intimate inter-relationship with every other part, and no one part is able to stand alone. Each demands the co-existence of the other elements in order to comprise the total picture which is the entire business enterprise (p. 2).

The table of contents for the CCS Manual (Sarasoyn & Protzman, 1949) is shown in the Appendix. This table gives some idea of the comprehensiveness of what was covered subsumed under the major headings of Management Policy, Organization, Controls, and Operations. Kenneth Hopper (1982 & 1985) provides some excellent insights into what the Manual covered and, in turn, the seminars themselves. For example in discussing the importance of a company having a clear objective, Hopper (1985, p. 37) notes the Manual cites that of the founder of the Newport News Shipyard: “We shall build good ships here—At a profit, if we can—At a loss, if we must—But always good ships.” This was also a lead-in to the importance of quality. Hopper notes, “The separate section on quality was lengthy. Of the manual’s 400 typed pages, 63 were devoted to quality control” (p. 37).¹⁹⁾

Hopper also discusses how the CCS seminars’ take on human relations (HR) differed from American and British views that saw “...leading as being different from following, therefore allowing, if not demanding, different qualities.” To show this Hopper quotes Sarasoyn: “A leader’s main obligation is

19) As also mentioned in the Sarasoyn quote above.

to secure the faith and respect of those under him” and “(the leader) must himself be the best example of what he would like to see in his followers” (p. 37).

Both Hopper articles (1982 & 1985) provide lengthy discussions of the HR aspects of the seminars and the value of that information. As Hopper (1982) put it: “The [HR] information... ..may have weaknesses, but it was put together by able people during a remarkable period of management creativity. We must be thankful to have it” (pp. 23–24).

Hopper also points out the emphasis given to democracy as indicated by a foreword to the Manual written by Polkinghorn. As Polkinghorn (1950) says in the foreword, these “occidental” ideas “...may not be clear to the oriental mind.” Perhaps this is a subtle reference to the military-dominated society to which the Japanese had just been subjected. Hopper, recalling a discussion he had with Polkinghorn, states (1982) “Polkinghorn tells me he wrote this introduction specifically because he felt he *must* stress the contribution democratic practices made to successful management” (p. 26). This brief excerpt from Polkinghorn’s foreword (1950) provides a feel for what he was trying to tell the Japanese:

Democratic western civilization... ..believes in equality; not the equality of position or ability, which may be beyond the control of man, but the equality of opportunity which will permit an individual to move from one position to another, or one social class to another, depending to a large measure upon his own ability, initiative, and industriousness.

In other words, recognize the inherent worth of each person and give that person every opportunity to contribute not only to his/her own well being but also to the company’s.

This idea relates closely to another feature of the CCS seminar that Hopper points out which is the emphasis on bottom-up management. Hopper (1982 & 1985) cites a couple of places in the Manual where it is pretty obvious

Sarasohn/Protzman felt this emphasis was justified. For example in discussing the topic of Zones of Management²⁰⁾ this rather damning statement—based on their review of the communications manufacturing companies—was made:

For one thing you do not zone your responsibilities and authorities in a manner that will make top management or lower management effective. The President of a company will be so involved in small details, in approving what should be routine action, that he does not have the time to be President. A managing director will be interesting himself in the details of operation of a small part of his job rather than planning and coordinating his entire organization. And the people at lower levels who should be responsible and accountable for and have the authority to do these detail functions are confused by the lack of proper definition of their job and by the lack of true responsibility and authority. *Further any initiative and interest they may have in trying to do a job is often destroyed by the interference and meddling of higher management* (Sarasohn & Protzman, 1949, p. 19, emphasis added).

Sarasohn underlined this point in his 1997 presentation noting that when they came to the subject of organization in the seminars the attendees “acknowledged that job assignments were generally vague and unwritten” and that “overlap in functional activities was common and no attempt was made to resolve obvious conflicts (p. 109).

With respect to the important subject of quality, Sarasohn (1997) notes that his main purpose was to be sure they didn’t think of it as “exclusively or uniquely a mathematical or engineering function” but rather “a spectrum of factors that together assure the attainment of pre-determined levels of acceptable

20) The idea that in an “efficient company” various levels of management are “separate and distinct” in which “functions are defined, authority is specified, and accountability is actually required” (Sarasohn & Protzman, 1949, p. 13).

product performance” (p. 109). And further that the level of quality for a product “is decided at the very beginning by its inherent design.” Given our knowledge of quality today, wise words indeed.

This sampling of comments on/from the Manual and on the seminars gives the reader a feel for the sort of things Sarasohn and Protzman were trying to convey to the top executives of the communications manufacturing companies. Things that were then current practices in good management in the U.S.; a time Hopper and Hopper (2007) characterize in chapter nine of their book *The Puritan Gift*, as the “Golden Age of American Management.”

The idea was for the attendees to take what they learned and flow it down. And Protzman (1950), in his report, states that in fact almost all “went back to their own companies and began... .. to acquaint the rest of their own top managements with the principles and practices we had outlined” (p. 5). Furthermore and significantly he states:

As a result of the widespread publicity given our work by the Japanese Management Association other companies not associated with communications became actively interested in taking the course, and at the time I left [May 1950] the Communications Manufacturers Association was conducting repeat conferences for some of these companies. Among these were companies from the Electric Heavy Industry, the Chemical and Textile Industry and the Machine Manufacturing Industry (pp. 5–6).

Both Sarasohn and Protzman felt the course had more than met their expectations. Sarasohn (1997, pp. 109–110) cites three factors: the enthusiastic follow-up by the top executive students within their own companies, reports of improvements they received, and a commitment by the Federation of Communications Industrial Associations to continue the CCS course for those not able to attend the first one and for other industries (as mentioned in the Protzman quote above).

6. The Aftermath

So it is evident the CCS seminars and Manual had an immediate positive effect on the Japanese communications manufacturing industry. However, the effect of this action by Sarasohn, Protzman, and Polkinghorn, the “three wise men” as Hopper and Hopper termed them in chapter 10 of *The Puritan Gift*, was far more widespread. Perhaps one of the best descriptions of the effects of the CCS seminars is contained in Hopper (1982):

There can be little doubt that the Civil Communications Section and its engineers made an important contribution to Japanese industry and the Japanese economy. On quality, perhaps the best documented evidence of CCS’ contribution came in the 15th anniversary edition of *Quality Control* (1965) published by the remarkably creative and influential Japan Union of Scientists and Engineers (JUSE). *Quality Control* honored “five pioneers” of Quality Control in Japan. All five, either in this anniversary issue or

Figure 3. The three wise men along with their translator. From the left: Homer Sarasohn, Frank Polkinghorn, and Charles Protzman (from Hopper, 1985, p. 35)



elsewhere, have referred to CCS as an early source of their quality inspiration or instruction (p. 29)

Hopper goes on to cite comments by several prominent Japanese on the positive effect the CCS seminars have had on Japanese management.

Fisher (2008) notes in his conclusions: “A 4-day version of the CCS course continued to run until 1974, under the auspices of the Japanese Industrial and Vocational Training Association (JIVTA)...” (p. 20). Fisher also quotes from Adams & Moranti (2008): “The CCS offered a solid institutional foundation that Japanese managers adapted to local economic and cultural circumstances, contributing to Japan’s spectacular takeoff in global electronic markets beginning in the 1960s.”

Hopper (1982) elaborates considerably on this last point; i.e., how the Japanese adapted what they learned from the Americans in the CCS seminars to their own culture. For example Hopper cites information he personally gained from Bunzaemon Inoue, who, at the time of the CCS seminars, was with Sumitomo Electric Industries (SEI).²¹ Quoting from Hopper (1982): “It is in the areas of human relations that Mr. Inoue, despite his praise of CCS material and of advisors like [the famous] Dr. Drucker, denies great American influence and argues that the sources of Japan’s now world-wide famous practices are Japanese culture” (pp. 30–31).

21) Inoue was very active in promoting the CCS seminars and, per a Kenneth Hopper email (July 25, 2011), was largely responsible for SEI receiving the coveted Deming Prize for quality in 1962. According to Kenneth’s brother, William, “Without his contribution [promoting the CCS seminars/material], in all probability, the invaluable lessons that the Americans taught would have fallen on stony ground; the various Asian Economic Miracles might not have happened” (The Puritan Gift Weblog, April 29, 2010). Inoue later became president and chairman of Sumitomo Rubber. He and Kenneth Hopper carried on a lively exchange of letters on factory management between 1979 and 1986 (short paper by K. Hopper entitled *Letters From a Sensei*).

Despite any “negative” criticism of the CCS seminars it is apparent that much good came from them at a time when Japan was sorely in need of such management information. The seminars and flow-down from them can be rightly credited with playing a big part in Japan’s recovery and rapid rise to economic prominence in the world. And also on the affect this prominence no doubt had on other countries such as the rise of the “Asian Tigers,” and, ironically, America when Japan began eating into its consumer electronics and automobile markets in the 1970s.

7. Summary and Conclusions

The purpose of this article has been to relate from mostly first-hand sources the story of how two American engineers, Homer Sarasohn and Charles Protzman, worked closely with Japanese manufacturers after World War II to initiate a management training program which played a big part in Japan’s rise from the ashes of war to become among one of the greatest economies in the world.

They were aided by a third person, Frank Polkinghorn, whose help greatly facilitated their efforts. As mentioned, in their book, *The Puritan Gift* (2007), the Hopper brothers, Kenneth and William, call these three “the three wise men.” Detailing the efforts of these three, including the trials and tribulations they went through, has been the reason for this article. The article also briefly discussed “the aftermath” showing how the CCS seminars have had a lasting affect, not only on Japan but also with many other countries. It is very likely that what happened in Japan in those immediate post-war years could have application again today as we see so many nations emerging from their dictatorial rule and striving to renew themselves much as Japan did after WWII. Perhaps the CCS story related here will inspire thinking along these lines as America strives to do its part in helping other nations become viable

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References

- Adams, S. B. & Moranti, P. J. (2007). Global Knowledge Transfer and Telecommunications: The Bell System in Japan, 1945–1952. *Enterprise and Society Advance*. Access originally published online on September 20, 2007. *Enterprise and Society* 2008, 9(1), 96–124.
- Fisher, N. I. (2008). Homer Sarasohn and American Involvement in the Evolution of Quality Management in Japan, 1945–1950, *International Statistical Review*. This prepublication version available by searching on “Kenneth Hopper Archives” and then under “Texts.” **Note:** The citation for the published version is as follows: Fisher, N. I. (2009), Homer Sarasohn and American Involvement in the Evolution of Quality Management in Japan, 1945–1950, *International Statistical Review*, Vol. 77, pp. 276–299.
- Hopper, K. & Hopper, W. (2007). *The Puritan Gift*. London: I.B. Tauris & Co Ltd.
- Hopper, K. (1982). Creating Japan’s New Industrial Management: the Americans as Teachers, *Human Resource Management*, Summer 1982, pp. 13–34.
- Hopper, K. (1985). Quality, Japan, and the US: The First Chapter. *Quality Progress* 18, 34–41.
- Polkinghorn, F. (1950). Foreword to the CCS Manual, 1950 edition. Available by searching on “Kenneth Hopper Archives” and then under “Texts.”
- Protzman, C. W. (1950), Report on Activity With the Occupation Forces in Japan November 1948 to May 1950 (report to Western Electric). Available by searching on “Kenneth Hopper Archives” and then under “Texts.”
- Reports of General MacArthur, *MacArthur in Japan: The Occupation: Military Phase*, Volume I, Supplement (prepared by MacArthur’s General Staff), 1994 ed. Available

Robert B. Austenfeld, Jr.: The Japanese “Miracle”

at <http://www.history.army.mil/books/wwii/macarthur%20reports/macarthur%20v1/index.htm>.

Sarasohn, H. M. (1997). Progress Through a Commitment to Quality. Presentation at the National Quality Management Conference, April 1997. Available at <http://www.valuemetrics.com.au/resources001.html>.

Sarasohn, H. M. & Protzman, C. B. (1949). *The Fundamentals of Industrial Management*. Civil Communications Section, GHQ, SCAP. 1998 electronic edition edited by N. I. Fisher. Available at http://www.cmis.csiro.au/opm/publications/PDF/ccs_manual_complete.pdf.

Appendix

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(from Sarasohn & Protzman, 1949, p. iii)

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